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CONTENTS

PREFACE

THE training of secondary teachers has already formed the subject of a previous Occasional Report issued from the Bureau. It dealt mainly with the systems of training followed in the United Kingdom, in Prussia and in America. The concluding portion was concerned with training in Bombay. In view of the importance of the subject no apology is required for a second volume especially as the previous report was published nine years ago, dealt mainly with the systems of other countries and did not touch upon the training of primary teachers. The Government of India have recently emphasised the necessity of preparation for the teaching profession and have made a recurring grant from imperial funds amounting to £20,000 annually. The succeeding pages written by Mr H. S. Duncan and Mr. A. H. Mackenzie give a description of the systems pursued in Madras and in the United Provinces. It is hoped that the volume may prove of interest and value to workers on the same subject in other provinces.

2. The fact that Madras and the United Provinces have been selected is not to be interpreted as warranting any assumption that the facilities for the training of teachers which exist elsewhere are not worth description. The selection was influenced mainly by the desire to present a description of what is being done in two provinces where general conditions widely differ, and the systems prevalent in which contain some suggestive features. Among minor reasons it may be pointed out that the system of training in Madras is long established and has undoubtedly had highly beneficial results and that in the United Provinces there has recently been a wide expansion of a form of preparation of primary teachers not dissimilar from a form which has been discarded in certain parts of India but which if it can be successfully pursued undoubtedly offers a solution of the difficulty involved in providing an adequate supply of trained instructors.

H. SHARP,

Educational Commissioner
with the Government of India.

October, 1918.

THE TRAINING OF SECONDARY TEACHERS IN THE MADRAS PRESIDENCY.

Introduction.

In the Madras Presidency there are two training colleges for graduate teachers—one at Saidapet and one at Rajahmundry—and attached to them are secondary training classes to which are admitted undergraduate teachers. There are also six government and two aided secondary training schools or sections for masters, and nine government and fourteen aided secondary training schools for mistresses. In July last seven new secondary training sections for masters were opened.

In the following report an account of the work of training teachers at Saidapet is given, and it may be taken that what is set forth in regard to secondary training applies in general to the other secondary training schools for masters. Work on similar lines is carried on in the training schools for women, as the system of secondary training and the courses of study are based on the 'Scheme of work in training schools' issued by the department.

It is when one comes to the model or practising schools that a difference is found between the colleges at Saidapet and Rajahmundry and the mufassal schools. At Saidapet and Rajahmundry there are complete high schools, whereas in the other training institutions for undergraduates the model schools are of the higher elementary grade. As regards the training schools for women, some of the model schools are secondary in character, others elementary. The educational qualifications of the staff of both secondary and elementary training schools or sections, in so far at least as government institutions are concerned, are similar, but the staff of the higher elementary grade model schools is not so highly qualified as that of the model high schools.

As this report deals with the training of secondary teachers, no more than a passing reference need be made to the training

of elementary teachers. In the Madras Presidency, there are three grades of training institutions—training colleges, secondary training schools and elementary training schools. The last are of two kinds—higher grade elementary and lower grade elementary. Into the former are admitted candidates who have passed the annual examination of the third form or eighth standard and have been found fit for promotion to the fourth form, or have been awarded an elementary school-leaving certificate of the eighth standard, while into the latter are admitted those who have passed the late primary school examination or a corresponding public or school examination. Preference is given to candidates whose educational attainments are above these minimum requirements. In lower elementary training classes will therefore be found men of varying degrees of attainment, and a similar diversity is to be met with in the higher grade elementary training school, but the diversity is not so marked. In the body of the report we shall have to remark upon a similar diversity of attainments in secondary training schools.

The training course for elementary teachers lasts for two years in the case of both grades of students and the subjects of study are laid down in the 'Scheme of work in training schools.' Most of the time is devoted to improving the general knowledge of the teachers and professional training is given chiefly by means of model and criticism lessons Formal lectures on 'method' are no longer given. It is laid down for the guidance of the training staff 'that model lessons should be arranged in courses, each course covering one of the school subjects or a well-marked portion of it.' The same system marks the arrangement of criticism lessons—'the model lesson of each week should precede the criticism lesson and the latter should be an attempt to carry out in practice what has been learnt in the former.' Teachers under training are given teaching work in the model school and are also given opportunities of observing the teaching of the staff. The notes taken during these hours are criticised by the members of the staff.

It is to be noted that in this Presidency the term 'secondary' or 'secondary grade' training is applied to the training of teachers who have passed the Matriculation examination or an

equivalent test and are not graduates, while the term 'collegiate' training is used to designate the training of graduates. A secondary training school occupies a place in the system of institutions for the training of teachers midway between the training college and the elementary training school, and follows, like the latter, courses prescribed by the Director, while a training college follows the course prescribed by the university and adopts a system of training the working of which is left to the Principal subject to the approval of the department.

In the report expression is given to opinions on various points. It should be understood that they are those of the writer of the report and not necessarily those of the department.

Admission.

Graduates seeking admission into the Teachers' College must produce a diploma of a university in the British Empire or other satisfactory evidence of graduation. Undergraduates must produce a completed secondary school-leaving certificate accepted by the principals of the training colleges, or, in the case of secondary training schools, by the officers responsible for the selection of students, or a certificate of having passed the matriculation examination, or the European high school examination or the late higher examination for women, or other corresponding test accepted by the Director of public instruction. Persons who have failed in the matriculation examination but who have obtained the required percentage of marks in such subjects of the public examination under the secondary school-leaving certificate scheme as are notified from time to time by the Director of public instruction are also eligible for admission. In addition to these certificates of general educational qualifications, candidates must submit certificates of conduct, of health and of age. As to age, a candidate should not be less than fourteen and should not exceed twenty-five years of age. Exceptions, however, are made in the case of teachers who have been employed continuously for not less than three years, the limit in such cases being thirty-five years. At the discretion of the principals and other responsible officers, teachers over thirty-five years of age are admitted.

In awarding stipends to candidates preference is given generally to those standing highest in the order of merit in the corresponding general education test, subject to the condition that all the great classes of the population are, as far as practicable, fairly represented in the allotment Priority of selection is given, in the order in which they are named, to the following classes of candidates :—

(a) Teachers employed in public schools.

(b) Persons to whom local boards or municipal councils have given provisional appointments in schools under their management.

(c) Village schoolmasters to whom teaching is a regular profession.

(d) Persons specially selected by managers, or headmasters, or headmistresses, under an agreement to return as teachers.

(e) Persons desirous of adopting the teacher's profession.

As regards holders of secondary school-leaving certificates preference is given in the order of merit to—

(i) those who show "sufficient knowledge in two of the subjects specified in group C other than shorthand and typewriting" and the holders of which are consequently eligible for Government service; and

(ii) those who do not show two such C Group subjects.

Stipends

In the Teachers' College, Saidapet, and other Government training institutions, provision is made annually for the payment of stipends from provincial funds to students under training. In the case of the Saidapet College the provision is for one hundred graduates and eighteen undergraduates, but as a rule the numbers under training in any one year exceed these figures as local boards and municipalities provide in their budgets for the grant of allowances not exceeding the substantive pay to permanent teachers from schools under their management. There are also candidates who are prepared to take the course without the payment of any stipend. It may be noted that, without the express sanction of the Inspector, the number under training in any class of a training school shall not exceed forty.

The ordinary rate of provincial stipend per mensem is Rs. 15 for a graduate, and Rs. 12 for an undergraduate. Special rates are also sanctioned in the case of the following persons :—

Collegiate Department.	Rs.
Masters of Arts, Muhammadans, Hindu mistresses, Panchamas	20
European and Anglo-Indian masters	35
European and Anglo-Indian mistresses	25
Secondary Department.	
European and Anglo-Indian masters . . .	30
European and Anglo-Indian mistresses	20
Hindu and Muhammadan mistresses	14
Manual Training Department . . .	15

From the statistics furnished in table A, page 8, it is evident that the rates of stipend offered are sufficiently attractive to induce teachers to undergo training. But a further attraction, and one that probably weighs more than any other, is that after training the prospects of a teacher in the matter of salary and his position on the school staff are enhanced. The department insists upon the employment of qualified teachers. The salary of an untrained graduate may be taken as ranging between Rs 50 and Rs. 65 with no hope of increment Generally after training he is given a fixed salary of Rs. 70 to Rs. 80, or is placed in a progressive grade of Rs 70 to Rs 100. There are of course considerable variations in the rates of salary, due chiefly to the financial status of the management and to the locality of the school, but there can be no gainsaying the statement that a teacher's position is improved by the possession of a diploma granted by the University or of a certificate awarded by the department An untrained undergraduate teacher receives a salary ranging between Rs 15 and Rs. 20 or Rs 22 per mensem, on the completion of his training course he will be given Rs 25 or Rs. 30 and can hope to rise to Rs. 50.

In addition to higher salaries there are the inducements of provident funds and pensions In the case of Government institutions the teachers are eligible for pensions under the Civil Service Regulations. Local bodies are allowed by Government to establish provident funds for the benefit of permanent officers and servants in superior service including teachers, and some local bodies have funds. Teachers who have served such bodies for not

less than twenty years are also eligible for gratuity. As regards schools under private management, only about fifty institutions have provident funds, the rules of which have been approved by the department. These funds are aided by Government by means of additional teaching grant limited to half of the amount contributed to the fund by the management.

Agreements.

Every student, before any stipend is paid to him, enters into an agreement binding himself—

(*i*) to remain in the institution during the period prescribed and during that time to abide by such rules as may be laid down for regulating his attendance and conduct;

(*ii*) to abstain whilst under training from engaging in any other avocation;

(*iii*) to abstain from attending any other institution except with the permission of the head of the training college or school;

(*iv*) to appear for such examinations as may be prescribed by the controlling authority;

(*v*) to serve as a teacher in a recognized institution or keep an elementary or secondary school within the jurisdiction of the Madras educational department (or, in the case of board stipendiaries, within the jurisdiction of the board concerned) for at least three years in the case of a male student, and two years in the case of a female student, and to enter upon such duties as soon as a suitable opportunity presents itself after the period of training is over;

(*vi*) to furnish the head of the institution, through the inspecting officer of the range in which he is employed, every six months during the three or two years referred to above, with information regarding residence, appointment held, salary and any other particulars which may be needed to enable the head of the institution to keep a history of the students trained in it.

If, from any cause other than continued ill health certified to by a recognised medical authority, a student fails to fulfil the conditions of the agreement, he may be declared to be unfit, absolutely or for a specified period, for employment as a teacher. If a stipendiary student, he shall also be required to refund the whole amount drawn by him from provincial, local or

municipal funds on account of stipend and travelling allowance, or such part of it as the authority financially concerned considers equitable in the circumstances of the case. In the case of a non-stipendiary student who has not already paid the fees prescribed, he shall be required to defray the cost of his training at the rate fixed as per regulations under fees and to refund any sum spent as travelling allowance on his account.

Recruitment.

The reports received from inspectors of schools and the statistics of the Teachers' College show that the number of undergraduate teachers seeking admission into training schools exceeds the provision made for training this class of teachers. Inspecting officers are continually urging managers of schools to send their untrained teachers for training, and the teachers themselves, in order to improve their prospects, are eager to be trained; in fact many are prepared to take the course without a stipend and bear the cost of the outlay necessitated by living in a town which in some cases is far from their homes. In July of this year secondary training classes were attached to selected mufassal institutions, public and private, in order to meet the growing demand for training, and in this way a considerable number of teachers unable to obtain admission into existing training schools will have the benefits of training The figures set forth in table A given below show that there is a need for more training schools for secondary grade teachers and that until these schools are started there will be a number of applicants who will not be in a position to improve their efficiency as teachers and to better their prospects. Especially significant are the figures relating to the Teachers' College and the Government Training School, Rajahmundry.

In regard to the training of graduates the difficulty is not felt to the same extent, although it is found that a much larger proportion of history graduates apply for admission than graduates who have taken other optional subjects for the B.A. degree. In Arts colleges also the number of history students exceeds that in any other branch. For example in the year 1917 there were 485 students who took their B.A. degree in history and 401 who

took their degree in other subjects, including philosophy and languages. The figures for 1916 were 322 and 254 respectively. The numbers applying for entrance into the Teachers' College in 1917 were, history graduates 124, other graduates 130. In 1916 the figures were 95 and 124 respectively

It seems desirable at this stage to give two tables which set forth the proportion admitted from schools managed on the one hand by Government, local bodies and municipalities, and on the other, by private bodies—Table B, and the proportion of teachers and non-teachers admitted during the last five years into colleges and secondary training schools—Table C.

Table A.

THE NUMBER OF CANDIDATES REGISTERED AND THE NUMBER SELECTED.

I. Training institutions for men

Name of institution	1912 13.	1913-14	1914-15.	1915-16	1916-17	Total.
1. Teachers' College, Saidapet—						
(a) Graduates	138/93	167/108	199/103	187/111	221/114	912/529
(b) Under-graduates	51/23	81/30	136/31	140/43	192/45	600/172
2 Government Secondary Training school, Tanjore.	42/33	40/19	79/31	101/38	127/52	389/173
3 Government Secondary Training school, Coimbatore	44/18	27/16	36/20	74/29	65/39	246/122
4. Government Secondary Training school, Calicut.	19/12	40/11	58/20	69/33	79/40	264/116
5. Government Secondary Training school, Mangalore.	..	..	15/5	20/9	42/26	77/40
6. Government Secondary Training school, Berhampur.	..	.	.	..	34/23	34/23
7. Government Secondary Training school, Rajahmundry.	113/40	120/55	176/71	250/65	280/101	939/332
8. American Mission Training school, Pasumalai.	23/16	29/14	20/15	56/26	75/31	202/102
9. C M. S. Training school, Palamcottah.	17/17	35/22	37/17	54/24	73/29	216/109

II. Training institutions for women.

Name of circle.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.	TOTAL.
Northern Circle .	No Secondary Training School for women.					
Southern Circle—						
(1) Sarah Tucker Training school, Palamcottah.	7/7	9/9	7/7	15/15	9/9	47/47
(2) Capron Hall Training school, Madura.	...	.	...	6/6	9/9	15/15
(3) Government Training school, Coimbatore.	...	...	..	8/8	8/8	8/8
(4) St. Anne's Training school, Mangalore.	11/11	13/13	9/9	21/21	18/18	2/72
Central Circle—						
(1) Presidency Training school, Egmore.	18/18	21/21	17/17	32/32	20/20	108/108
(2) Government Secondary Training school, Triplicane.	..*	*	10/7	17/13	24/13	51/33
(3) U.F.C.M. Training school, Rayapuram.	† 5	† 19	† 12	† 8	† 12	† 56

* Figures not available † Number applying not available.

Table B.

THE NUMBER OF TEACHERS ADMITTED FROM SCHOOLS MANAGED BY GOVERNMENT, LOCAL BODIES, MUNICIPALITIES AND PRIVATE BODIES FOR THE QUINQUENNIUM, 1912-13 TO 1916-17.

I. Training institutions for men.

Name of institution.	Under public management.	Under private management.
(a) Teachers' College, Saidapet—		
(1) Graduates	104	367
(2) Under-graduates . . .	51	118
(b) Other institutions	229	610 ‡

‡ Figures for one school not available.

II. Training institutions for women.

Name of circle.	Under public management.	Under private management.
Northern Circle	...	... §
Southern ,, ...	2	15
Central ,, ...	. .	... ‖

§ No secondary training school for women.
‖ Figures not available.

Table C.

THE NUMBER OF TEACHERS AND NON-TEACHERS ADMITTED FOR TRAINING.

I Training institutions for men.

Name of institution.	Teachers.	Non-teachers
(a) Teachers' College, Saidapet—		
(1) Graduates	468	61 *
(2) Under-graduates . .	168	4
(b) Other institutions . . .	839	118 †

* Chiefly Honours graduates

† Eighty-one of this number were trained in institutions under private management.

II. Training institutions for women.

Name of circle—	Teachers.	Non-teachers.
Northern Circle	...	.. ‡
Southern „	21	121
Central „	56	153

‡ No secondary training school for women.

It will be noted that most of the teachers come from schools under private management, and that in training institutions for men the 'non-teacher' is in the minority, while in similar institutions for women the non-teacher predominates.

The question whether teachers or non-teachers form the best material cannot receive a definite answer. In the natural course it would appear that the teacher with experience should form the best material, but I have had students who have never stood in front of a class remarkably quick in arriving at what was required of them One advantage that the inexperienced student possesses is that he comes without any preconceived notions and has not formed habits that have to be broken. It sometimes happens that the experienced teacher of some years' standing is adamantine; he cannot throw off the shackles of wrong methods; he argues that he has taught a subject for so many years and has been successful in preparing pupils for examinations, and consequently there cannot be much amiss with his methods. He has the advantage over the non-teacher, however, of being able to face a class with confidence, of being able to question with ease, of being resourceful in times of difficulty.

Staff.

The staff of the (*a*) Collegiate, (*b*) Secondary department of the Teachers' College consists of—

(*a*) *Collegiate section.*—Principal and vice-principal in the Indian educational service, salary *Rs. 500—50—1,000.* Seven lecturers, some of whom are in the provincial educational service and the rest outside that cadre. The minimum salary of these lecturers is Rs. 200, the maximum depends upon their position in the Provincial Service. The lecturers in mathematics, physical science, natural science and history are masters of Arts and licentiates in teaching of the Madras University, the senior lecturer and the lecturer in geography are bachelors of Arts and licentiates in teaching, while the lecturer in kindergarten is a lady who has attended the course of instruction in the Froebel Institute, London, and obtained the diploma.

(*b*) *Secondary section.*—The staff of the secondary section ordinarily consists of a headmaster and an assistant in the cadre of sub-assistants (subordinate educational service), and the rate of salary ranges from Rs. 75 to Rs 200. The officers who are licentiates in teaching, are either masters of Arts or bachelors of Arts. In addition, the collegiate and the secondary departments have in common with the school, two drawing masters and two drill instructors on the following salaries:—

Drawing master (senior) .	Rs. 60 (40—2—60)
„ „ (junior)	„ 20
Drill instructor (senior) . . .	„ 50 (30—2—50)
„ „ (junior)	„ 15

For the manual training department an instructor from England on a salary of Rs 400—20—500 has been appointed temporarily for a period of five years.

In the collegiate section the lecturers in mathematics, physical science, natural science, kindergarten, history and geography are in entire charge of and responsible for the efficient working of their particular sections, while the English lecturer has to organise the work of all the students making up the several divisions. With one hundred or more graduates he finds it difficult to make satisfactory arrangements for the supervision of the practical work

in the school, for criticism lessons and for the effective checking of observation notes, *i e*, of notes taken by students when observing the teaching of the permanent staff of the school and of their class mates. Assistance in this work has to be given by the principal and the senior lecturer.

The mathematics and physical science lecturers have each on an average 24, the history and geography lecturers 40 to 45, the natural science lecturer 4 or 5, the kindergarten lecturer 8 or 10 students In the physical science section it has been thought expedient to limit the admission to 24 as the lecturer finds that a larger number hampers him in his efforts to assign useful courses of laboratory and workshop practice.

The two members of the secondary staff are sufficient, provided the class does not exceed twenty students In the last two or three years, however, the strength has risen to sixty owing to the large number seeking admission and to the opening of the manual training class. The smallness of the staff for such a large number of students is due to the supposed temporary nature of the arrangements If secondary training is to form a permanent part of the work of the Teachers' College, the question of strengthening the staff will arise, and a system similar to that obtaining in the collegiate department, whereby each member of the secondary training staff would be free to devote himself to the study of his own subject and of how best to teach it, may be adopted.

Courses.

We may now proceed to a consideration of the nature of the courses prescribed for training teachers employed in secondary schools. In this Presidency such teachers may be divided into two classes comprising the graduate or the specialist, whose activities lie in the three highest forms, and the under-graduate, whose work is confined to the teaching of most subjects in the lower forms and classes. Collegiate training is concerned mainly with inculcating methods of teaching special subjects, such as mathematics, history, geography, science and English, while undergraduates are given instruction in the methods pertaining to the teaching of all subjects of the school curriculum in the lower forms and classes. Not only is the trained graduate

teacher concerned with teaching his own special subject and in most cases English, but he is also expected to guide and supervise the work of his colleagues employed in the lower forms in teaching the subjects bearing on his special branch. In other words, the specialist in science is expected to keep an eye on the teaching of elementary science in the lower forms, the specialist in history on the teaching of history, and so on. In the Teachers' College this work of supervision and guidance devolves on the special lecturers who draw up syllabuses which are followed in the school and which are published by the Government Press in the form of bulletins for the guidance of such teachers as may care to consult them in the preparation of courses of study suitable to their own schools.

Thus a graduate teacher when he leaves college has gone through a course in the theory and practice of education comprising the elements of psychology and logic, organization, discipline, etc., and has received instruction in the methods of teaching English and at least one other subject, the subject being in most cases the one studied as his optional for the B A. degree examination. It may be history, or mathematics, or physical science, or natural science. In addition to his special subject the history graduate takes geography. It would be an advantage if geography could be made to stand by itself as one of the special subjects for the L. T. degree; but I would not advocate this step being taken until the university makes provision for a course of geography. But to return to the specialized courses. There can be no doubt that concentration on two subjects leads to a more thorough and effective teaching of the subjects and that a teacher feels that his energies are not being dissipated by his attempting to become proficient in subjects for which he has no liking, or no marked talent. The old system of having a lecturer in method who took up the various subjects of the school curriculum and discoursed on suitable methods of teaching these subjects to a class composed of mathematics, science, history and philosophy graduates is gone. Under that system the history graduate, whose knowledge of mathematics and science was limited, had perforce to acquaint himself with the methods of teaching subjects for which he might have a positive dislike.

The problem of the graduate in philosophy still remains with us and to it has now been added that of the honours graduate in English language and literature. The latter is not in a position to do himself justice if he takes up history and geography or science or mathematics, as his special subject and therefore drifts into the kindergarten. The philosophy graduate generally enters the history and geography section, but within the last year or two some have chosen kindergarten as their special branch of study Speaking generally, the graduate in philosophy is assigned English and history work in schools.

From the foregoing remarks it will be gathered that teaching by specialists is a feature of the schools in the Madras Presidency; at any rate for the past five or six years great emphasis has been laid on the training of graduate teachers in the subjects in which they are specially qualified Whether our system of specialized training is justified by results may be judged from the opinions of certain inspectors of schools—

One inspector says :—" It seems to me sound that all teachers should study methods appropriate to the teaching of English not only because in the actual circumstances of Indian high schools they may have to teach English, but also because English is the medium of instruction in the non-language subject which the teacher is employed mainly in teaching, *e.g.*, in connexion with the correction of oral and written answers in history. I think they will do their non-language work, which is in English, better for having studied methods of teaching the language which they employ as the medium of instruction."

Another inspector says :—"I approve of this system of specialization and my experience is that good work is being turned out by teachers trained in this manner."

Another inspector says :—" I am a firm believer in specialization in the L. T. course. The individual teacher is engaged for the whole of his professional life in the teaching of English *plus* the special subject in which he took the B. A. degree. Obviously it is of the first importance that he should be trained deliberately in the teaching of these two subjects. To confine a teacher's training to general apsychology and pedagogy is to train him for the post of headmaster—a remote possibility for the majority

of teachers . . To teach a subject effectively and rightly the teacher must be trained deliberately to teach that subject: he must be taught the special methods appropriate thereto. The *above remarks do not commit me to the opinion that specialization* should be intensified at the expense of general training. Specialization alone in one or more subjects would produce a teacher of narrow views and practice. Again, all subjects have a common foundation and common elements so far as their teaching is concerned, and a general training directed to these common elements is therefore essential."

Another inspector says:—"I fully endorse the desirability of giving instruction in the methods appropriate to the teaching of two subjects in the L. T. course—one of which should be either English or a second language, and the other mathematics, science or history and geography. In the financial condition of most of our secondary schools the teachers' time-table has to be so arranged that a teacher is given work in at least two subjects of which one is generally a language subject; and such a change of work during the day is desirable in the interests of the teacher himself."

The courses of study for secondary training schools are laid down in "The scheme of work in training schools" and comprise general principles, organization and discipline and methods to be adopted in teaching languages, mathematics, elementary science, history and geography. Classes in drawing and elocution are also held. The practical work consists of observation of the teaching of the members of the staff and of teaching in the school.

From a consideration of the courses laid down for the two grades of teachers, it follows that the graduate and the undergraduate cannot profitably be trained together. The chief obstacle *is the higher attainments* of the former. *The knowledge* of *English* or mathematics, or science, or history, or geography possessed by the matriculate is not of a high standard, and energy would be wasted in attempting to train the secondary grade teacher along with the graduate. *The specialized course prescribed for the graduate* is also a reason for keeping the graduate and the under-graduate apart in their training It may be worth mentioning in passing that in the Madras Presidency the existing specialized training of

It is maintained that some trained teachers become headmasters of schools and as such should be acquainted with the methods of teaching all subjects of the school curriculum so that they may exercise effective supervision over their assistants Granted that headmasters should have some idea of the claims of contending subjects, yet it can be held that, with a staff of assistants trained in special subjects, a headmaster may well entrust the work of preparing syllabuses and of seeing to their proper working to his colleagues.

Duration of course.—At present the course for graduates and under-graduates covers one year, and is a provisional arrangement in so far at least as the under-graduate is concerned. At some future date it is intended to extend the course of training of under-graduates to two years during which time, in addition to the professional training, they will be given opportunities of improving their general education. It will be admitted by all that after a year's study of the methods of instruction and of the problems of discipline and school organization, a teacher is armed against the worst faults of inexperience and ignorance; but more than this is necessary. The teacher's body of knowledge when he enters the training school must be substantially increased, and this object can only be attained by lengthening the course so as to enable teachers to improve their general knowledge of the subjects they will be expected to teach by attending special classes in high schools, or in colleges.

Methods of teaching.

I may now pass on to a consideration of the methods of teaching adopted.

In the time-table, for collegiate and secondary grade students periods of 50 minutes each are devoted to lectures, model and criticism lessons, observation of the teaching in school and practical work or teaching in school. Physical science graduates also go through a workshop course of metal work, wood work and glass-blowing, and learn how to fit up apparatus and to make small epairs. In addition, they have a course of elementary exercises in the laboratory and use the simple apparatus found in high schools. They learn the imperfections of such instruments, the

methods of minimising their effect and the limits of accuracy that may be expected in high school work as done by beginners. By observing the laboratory class of the pupils they also become acquainted with the common mistakes made by them and the direction in which guidance on the part of the teacher is most wanted.

The natural science graduates have a course in glass-blowing and fitting up of apparatus for simple experiments. They also learn to handle simple tools. The collecting and preserving of insects, the drying and preparing of plants for the herbarium, the preserving of plant and animal specimens in spirit and formalin for the museum, school gardening, the elements of photography and lantern slide making are also included in the course of training. The students are occasionally taken out on excursions for the study of specimens in the fields and rivers

In addition to the usual course of lectures, model and criticism lessons, observation and teaching work, the mathematics graduates devote about twenty-four periods of an hour and 40 minutes each to practical mathematics. The end in view is to show the teacher the direction in which the subject may be correlated with geography and physics, the aspects from which it leads one to higher mathematics, or commercial, or technical mathematics. Another aim is to give him a training in the proper use of the black-board, to teach him to draw neat and accurate figures free hand and with instruments.

In the history course emphasis is laid on the need for a free and full use of various aids to the teaching of history, such as documents, pictures, sketches, maps, charts, etc. Attempts are made to determine the stages in a pupil's school career when these aids are most useful. Two periods are set aside each week for what is termed 'practical work' as distinct from practice in teaching. Exercises are set on the use of documents, maps, pictures, etc. Maps also are drawn by students both on paper and on the black-board. Printed sketches, pictures and cuttings from illustrated papers and magazines are distributed among the students, and they are asked to state what they would expect pupils at particular stages to observe in and infer from them. Charts depicting local history are also made.

The knowledge of geography possessed by the history and philosophy graduate is very limited and consequently the whole of the first two months is devoted by the lecturer to imparting some knowledge of the subject matter. A knowledge of principles is insisted upon, and students are led to acquire facility in the use of atlases, maps and books of reference. Exercises in map-drawing, sketching and filling, and practice in the use of pictures, diagrams, maps, and globes from an important part of the practical course. Exercises in the use of statistics and readings from original descriptive source books of travel are also given. The aim kept in view is to enable the facts to be learnt and understood through the working out of these exercises and to bring out the causes and principles underlying them.

The syllabus in English and special subjects prescribed by the University are followed by the lecturers of the college staff, while the members of the secondary grade staff are guided by those laid down by the department in the "Scheme of work in training schools."

The approximate number of hours devoted to lecturing is as follows :—

Collegiate section.

Theory and practice of education	70
English	21 to 25
Mathematics, physical science	54
Natural science, history, geography	33
Kindergarten	30

Secondary section.

General principles	60
Special methods	85
Kindergarten	30
Organization	60
Discipline	30

Model lessons are given throughout the course by the several lecturers, and, in addition, all students are afforded, as far as practicable, opportunities of observing their lecturer's teaching in the school. The English lecturer, for example, in taking the fourth or fifth form for three periods a week, instructs students in turn to observe him for three weeks or so The notes of observation taken during these periods are read

through by him and discussed, if necessary, with individual students. A similar system is adopted with regard to the notes taken by those told off to observe the teaching of the members of the permanent staff of the school and students under training. Much of the time of the students is thus given to observation, and, with a good teacher on the permanent staff, considerable benefit is derived by the students from this part of their training.

Criticism lessons.

In addition to the criticism lessons given before the whole class or a section of the class, we have adopted a system wherein lessons are given in the school itself before half a dozen to a dozen students and with a lecturer presiding. The lecturer meets the students at some convenient hour after the lesson, and discusses with them their merits and defects. This plan has the advantage of saving time, of not disturbing classes by moving them from the class room to the lecture hall, of instilling, in the case of nervous students, a certain amount of confidence, and of making the lesson more natural and less formal in character. Such lessons also fit in naturally with the stage of knowledge and advancement of the the pupils and follow the lines of the ordinary class work according to the school time-table. Teaching under conditions approaching as far as is possible the normal calls forth a student's powers of discipline and class management. It has so far worked satisfactorily. Further, with a class of over a hundred graduates it is impossible to conduct formal criticism lessons in English in the time set apart for training. In all subjects there is held at least one formal criticism lesson per week, and it is only with regard to English that it has been found necessary to conduct additional lessons in the class room, although in the special subjects also the lecturers find it advantageous to have criticism classes in the school.

Observation.

Something has already been said about students' observation work which consists of writing notes on the teaching they have observed in the school, these notes being criticised by the members of the staff responsible for the particular subject All students are assigned, as far as possible, to assistants teaching in class IV up to form VI; in other words, they are made to observe

the teaching of English and other subjects in the preparatory, lower secondary and upper secondary departments in turn. As the year is divided into three sessions this arrangement is found quite workable, and students are afforded opportunities of watching the teaching of English and the appropriate special subjects in all the departments of a high school. The permanent assistants of the school in charge of the English work of forms I to VI are trained graduates, while the English work in classes IV and V is in charge of the lecturer in kindergarten and a trained secondary grade teacher. In fact in the model school practically all the teaching in forms I to VI is done by certificated graduates. Students also spend a part of their time in observing the teaching of their classmates, and the notes taken then as well as those taken while observing the teaching of the school staff are scrutinized by the lecturers and commented upon. A similar plan is adopted in regard to the special subjects. The history student observes the teaching of history and geography; the physical science student the teaching of physics, chemistry and elementary science; the natural science student the teaching of botany and elementary science; the mathematics student the teaching of elementary mathematics, geometry and algebra. The lecturers aim at training students to take note of essentials, to eschew the trivial, to be methodical and neat. It is believed that these observation notes prove to be a useful record for reference by the student after he leaves, the college and resumes work in his school. Much importance is therefore attached to this part of the course.

Practical work.

Turning now to the actual practice in teaching, it is found that, with a practising school of 570 pupils on the rolls, divided into 20 sections, difficulty is experienced inl giving every student a few hours' practical work. Further, the school has a full complement of trained graduate and undergraduate teachers, and the pupils are no longer subjected for any length of time, as in the past, to the teaching of untrained men. If the average number of students under training, both collegiate and secondary

grade, is taken to be 160, it will be readily understood that sufficient time cannot be given to practical work.

I would welcome greater facilities for practical work. Especially in the case of the secondary-grade students of the Teachers' College, it must be admitted that they cannot be given a sufficiently varied range of practical experience in teaching. Even the graduate teacher with his specialised course of training is handicapped in the matter of teaching experience.

A few words may not be out of place here on the question as to whether practical work should synchronise with, or succeed theoretical work. In the Teachers' College, and I believe in most training institutions, the practice is to give instruction in the preparation of teaching notes and general methods of teaching and class management for the first four or six weeks of the course and then to call upon teachers of some years' experience to give criticism lessons, or teach in the school itself under supervision. If the whole class under training were composed of men who had spent two or three years in teaching before entering on a course of professional training, it would be possible after two weeks or so to give them practical work, but when the class contains men who have never stood up before a class of boys, there would be neither profit to the student nor to the pupils in adopting such a course. Under the existing conditions I feel that students are made to teach at too early a stage of their training and that they would be in a better position to do themselves justice if they could spend a much longer time in observing the work of the permanent staff and could receive more theoretical instruction. If the course were extended to two years, it would then be possible to devote the first year to theory and observation and the second year to practice, with this proviso, however, that the number of training institutions is increased.

Drawing and manual training.

Drawing is a subject for which students do not show great aptitude, and, whether this is due to indifference, or to the fact that they are unable to realize the importance of drawing as an aid in teaching, or to a feeling of diffidence as to their capabilities,

it is hard to say. The fact remains that seldom does one find teachers capable of putting an illustration on the black-board which is useful to the class. Given time to prepare a sketch before entering the class-room a fair production may be expected, but for rapid, clear and instructive sketches on the black-board during the progress of a lesson we seek, for the most part, in vain. It is the opinion of inspectors of schools, I believe, that drawing is not taught satisfactorily in schools If this is the case, then the teachers of drawing in training schools have an up-hill task. Our experience is that the drawing masters have discouraging material to work upon, but at the same time we must not lose sight of the fact that they do not realize sufficiently the pedagogic side of their work

During their training course graduates spend two periods a week, under-graduates three periods a week in learning to draw on the black-board and on rough brown paper in chalk, and at the end of the year are examined by the manual training instructor and the drawing master The subjects of the school curriculum such as science, history and nature study furnish material for practice. Their proficiency in drawing is noted in the certificate issued by the college Taken as a whole the chalk work on paper is creditable and certainly students do show progress in this line It is the black board work that is so poor Lack of perspective, gaudy and unnatural colouring of objects, want of clear bold outline, lack of sense of proportion are faults only too commonly met with.

At the Teachers' College a manual training class was started about two and-a-half years ago and nine or ten qualified instructors have left the college. Of this number not more than three are employed as instructors in schools. At present there is no demand for such men, owing mainly to want of funds, and the number of schools with a manual training department can be counted on the fingers of one hand.

The course lasts for two years and consists of clay and card-board work, wood work, mechanical and art drawing. The qualifications for admission are similar to those for undergraduates, and the amount of stipend is Rs. 15. Along with their special course manual training students receive instruction with the

secondary grade students and sit for the training school-leaving certificate examination. They have thus a double qualification on passing the examinations, *viz*, they are qualified secondary grade teachers and manual training instructors. The officer in charge of the class is a qualified instructor with experience of such work in England.

Physical instruction.

All students undergo a course in drill and physical exercises and are divided into sections, each section being under instruction for two hours every week. The instructor follows the course laid down in the Board of Education's syllabus of physical exercises. As far as possible opportunities are given to individual students to drill small classes of their fellow students. At the end of the year they are examined by the adjutant of one of the volunteer corps in Madras. Our experience has been that the students acquit themselves creditably in drill and physical exercises, but come to grief in the actual teaching. They are capable of issuing words of command and to a certain extent of explanation, but they are not sufficiently observant of the individual work of the class under instruction. Many mistakes in the position of the body and limbs and in smartness of execution are allowed to pass unnoticed The drill periods are not welcomed by many students and little enthusiasm is displayed Some, however, are keen and smart. This feeling of indifference may be accounted for by the fact that all high schools have a gymnastic instructor whose duty it is, in the opinion of graduate and undergraduate teachers, to attend to drill, physical exercises and games, and that the assistants of the school have no concern in this part of the school curriculum. However, steps have been taken lately to impress upon students the importance of physical exercises and games. For the last three years a course of lectures on physical [illegible] hygiene and games has been delivered by the physical director of the Young Men's Christian Association, Madras, [illegible] gratifying to be able to state that a change is coming [illegible] attitude of teachers with regard to physical instruction [illegible] lectures he discusses among other subjects the existing [illegible] of physical training and their applicability to the [illegible]

the young, the necessity for the systems being formulated on physiological principles, and the exercises designed to suit children at different stages of development. One of the ends the lecturer has in view is to interest teachers in organizing group games so that in every school the teachers may be assigned to classes and be responsible for superintending the games of their pupils. Unless such a system is followed it is hopeless to expect the majority of the pupils of a school to take part in games of any kind. A gymnastic instructor cannot attend to the physical education of three or four hundred boys. If only, therefore, graduate and undergraduate teachers can be roused to take an interest in this side of their work, much will have been accomplished in the direction of a healthier system of physical education than prevails at present.

Cost.

In the case of the Teachers' College the cost of training a collegiate grade teacher and a secondary grade teacher cannot be given separately. Taking the two grades together the average annual cost per student for the last five years is Rs. 607. If figures for the last three years are considered, the average annual cost amounts to Rs 564, the difference being accounted for by the outlay in equipment on the reorganization of the college. In the case of mufassal secondary training schools the average cost may be taken to be roughly Rs. 210.

Examinations.

The examination for the L.T. degree is conducted by means of four written papers, each of three hours' duration The first day's papers are on the theory and practice of education, the minimum for a pass being 35 per cent. of the total marks of the two papers taken together. The second day's papers are on (i) methods appropriate to the teaching of English and (ii) methods appropriate to the teaching of one of the following groups of subjects: (*a*) all subjects to young children; (*b*) mathematics; (*c*) physical science; (*d*) natural science; (*e*) history and geography; (*f*) one language other than English. It may be mentioned in passing that provision has not been yet made for the last

group. The minimum in this part of the examination is 35 per cent. in each of the papers—English and optional group—and 40 per cent. of the total marks in the two papers. To obtain a second class, candidates must obtain not less than 50 per cent. of the total marks, and to secure a first class 60 per cent. of the total marks. If a successful candidate obtains not less than 60 per cent. of the marks in the English or the optional group paper, he is considered to have gained distinction, and the fact is recorded in the diploma awarded to him.

Under the old regulations a practical examination was held soon after the publication of the results of the examination in the theory of education, and successful candidates were called upon to teach in the presence of a board of examiners. This examination was held in a school with which the teacher generally had no acquaintance, the pupils were new to him and there was the board of examiners sitting in judgment. The combination did not bring out the best in a teacher. Further, an examination conducted on these lines encouraged candidates to look upon the test as a sort of performance for which they had to prepare, very much as an actor has to study his part in a play. When therefore the reorganization of the L. T. courses came up for discussion it was decided to eliminate the practical test. It may be questioned whether the abolition was a sound departure. Personally I should welcome a practical test, but I would have it conducted on different lines. On passing the theoretical portion of the examination I should require the teacher to teach in a school for one year, at the end of which time he would be permitted to appear for a practical test in his own school. The test should be as informal as possible, and might be conducted by a board consisting of the inspector of the circle and the headmaster of a neighbouring high school. If successful, the teacher would be declared to have passed the L.T. degree examination. Such a test would help to improve the quality of the teaching in schools, would impress teachers with the truth that there is an art of teaching, and would in no way be a bogey—such as the old practical examination was.

Secondary grade teachers have to appear for an examination called the training school-leaving certificate examination which is conducted by the inspector of European and training

schools with the assistance of the staffs of the training institutions and such other persons as the Director may from time to time depute for the purpose. The examination is held once a year and ordinarily in the last week of March The inspector of European and training schools determines which of the candidates shall be declared to have passed the examination, enters their marks in their certificates and publishes their names in the *Fort St. George Gazette*. Such persons are then called probationary trained teachers and are considered for all purposes of the Public Services Notification, the Madras educational rules and the grant-in-aid code as trained certificated teachers for three years from the 1st April of the year in which they appeared for and passed the examination A candidate who fails in the examination may appear for a subsequent examination without further attendance at a training school.

Probationary teachers are not required to pass a formal practical examination in order to complete their certificates, but Inspectors, when they visit the schools in which these teachers are employed, test their ability in such manner as they consider necessary, and, if satisfied with the teachers' work, complete their certificates by making an entry to that effect over their signature. No certificate is completed which does not show at least *eighteen* months' satisfactory work in a recognized school. A teacher whose certificate is not completed in this way within three years from the date of his passing the training school-leaving certificate examination, ceases to enjoy the status of a trained teacher, and can only be ranked as a trained teacher when he completes his *certificate*.

In January of each year, inspectors and inspectresses forward to the inspector of European and training schools lists of teachers whose certificates they have completed, classifying them as of the first or second class. Consolidated lists of such teachers are published from time to time in the *Fort St. George Gazette* by the inspector of European and training schools.

The following tables give the number passed and the number examined in the quinquennium 1913—17 :—

L. T. Degree examination, Teachers' College

Year	Passed/Examined	Year	Passed/Examined
1913	92/95	1916	89/111
1914	96/103	1917	97/112
1915	89/100		

Training School-leaving Certificate examination, Teachers' College.

1913	18/21	1916	31/42
1914	24/24	1917	60/65
1915	26/30		

Training School-leaving Certificate examination, other secondary grade schools

1913	93/116	1916	141/193
1914	91/118	1917	241/280
1915	128/153		

It will be seen that the precentage of passes in both grades of examination is high.

Subsequent careers of trained teachers.

The majority of teachers come from colleges and schools under private management and return to their appointments after their training. The remainder are employed either as inspecting officers or as lecturers and teachers in institutions under public management. By far the largest number of collegiate teachers are entertained in high schools under private management, a few are appointed as headmasters of middle schools. Undergraduates or secondary-grade teachers are employed in the lower forms or classes of high schools, in middle schools and in the model schools attached to secondary and elementary training schools.

We find in this Presidency that a few candidates seeking admission have, before becoming teachers, been employed as clerks in the different departments of Government and that some have attended the law college for one or two years. At the end of the three years' agreement to serve as a teacher in recognised institutions under the control of the Director of public instruction, Madras, a teacher is free to seek employment in schools outside the jurisdiction of the Director, or to enter any other walk of life. But very few give up the teaching profession after being trained. If they do, it is generally with a view to practising as vakils.

It is interesting to note that in the last three years a considerable number of masters of Arts and bachelors of Arts (honours) have joined the Teachers' College. In the years 1915, 1916 and

1917 the numbers are 18, 24, 21, respectively. We find, however, that these young men are not inclined as a rule to serve as assistant masters in schools, nor do managers of schools show any special desire to employ them. Work as lecturers in colleges is their ambition. The inspecting line does not seem to appeal to them. As regards their employment in schools, salary is the main difficulty since schools are not in a position financially to offer a salary commensurate with their attainments. They are prepared to enter Government service on Rs. 60 and trust to their lucky star, but they will not apply for posts in private schools carrying a salary of less than Rs. 100.

Conclusion.

In concluding this report it will not be out of place to give a brief history of the Teachers' College and to offer a few remarks on improvements that may be effected in the near future in the training of teachers.

When the education department was constituted in the year 1855, the Director of public instruction, feeling the need for a number of qualified schoolmasters to be placed in charge of schools to be opened in the important centres of each district, obtained permission from Government to open a normal school in Madras. In the year 1856 the school was formally opened and teachers of all grades were admitted for a two years' course of general instruction and professional training. In 1872 the activities of the school were confined to professional training and the course was reduced from two years to one year, while in 1875 the period of training in the case of graduates was reduced to six months. When it was resolved in 1885 to have an L. T. degree, the institution was reorganised and affiliated to the University and began to prepare candidates for the degree. The school was now designated the Teachers' College and was removed to Saidapet in 1887. The year 1911 saw the reorganisation of the college and the amalgamation with it of the Training College, Rajahmundry, which had been opened in 1894. An increase in the number of stipends from about 50 to 100 was also sanctioned. This was the year in which the specialised training of graduates was begun and the new syllabuses prescribed by the university came into operation. In

1916 it was decided that special provision should be made for the training of graduate teachers coming from schools in the Telugu or northern districts of the Presidency, and in July 1917 the Training College, Rajahmundry, modelled on the Teachers' College, Saidapet, admitted 50 graduates for training. A collegiate training class was also attached to one of the aided first-grade colleges in Trichinopoly, and 20 graduates were admitted.

It will be of interest to note that the average number of graduates under training per annum in the Teachers' College from 1887 to 1910 was 31, while in the period 1911—17 the average number was 103. In the six years preceding 1911 the average number was 48. In the quinquennium 1913—17, 484 teachers passed the L T. degree examination. All of them received a training in the methods of teaching English, and with a few exceptions underwent a course in methods appropriate to the teaching of the optional subject in which they took their B. A. degree. Already their influence is making itself felt in schools. Improved methods are being introduced, the teaching is more efficient, more systematic work is being done, there is less lecturing and dictating of notes, there is less cram.

Coming to the improvements that may be expected shortly, it may be stated that in the case of undergraduates they hinge on the two years' course which has been sanctioned by Government but has not yet been brought into operation With the object of improving the professional and general educational qualifications of secondary grade teachers it has been decided to extend the course of training to two years and the scheme involves the opening of new training schools in addition to those to which, as a temporary measure, have been attached secondary training sections during the year 1917-18 With these new centres and with improved pay and prospects for teachers there is every hope that in *this Presidency there will be a considerable reduction in the un*trained element in the staffs of our schools

I shall now proceed to offer a few remarks on the qualifications of candidates seeking admission into secondary training schools What strikes one is the diversity of the material entering the training school. There is the school-leaving certificate candidate, and this class forms the largest number, there is the teacher who

has passed the intermediate examination, and there is also the teacher who has passed one or two branches of the B. A. degree examination. The aim should be to add to the equipment of those holding secondary school-leaving certificates so as to render the instruction in schools as efficient as possible Mention has been made of the specialized course prescribed for graduates who will, after training, be employed in teaching the upper forms of high schools. In the case of undergraduates who will be in charge of the lower forms—and I refer specially to those who have not gone beyond the matriculation standard—it is necessary to continue their general education so as to enable them to handle with confidence the subjects taught in the lower school. For example, the teacher who has made a special study of physics and mathematics for the secondary school-leaving certificate public examination should devote part of the time of his training course to a further study of English, history, geography and vernacular; the one who has taken up history and vernacular should give a part of his time to mathematics, elementary science, geography and English. I would have special attention paid to geography and elementary science as these are non-examination subjects under the secondary school-leaving certificate scheme.

In order to give effect to this scheme of improving the general educational qualifications of teachers under training, additional staff will be required in all secondary training institutions attached to high schools There should be no difficulty in appointing instructors who, by virtue of their special qualifications in particular subjects, would be in a position to give courses of general instruction and at the same time train the teachers in the methods appropriate to the teaching of those subjects. In fact the system obtaining in training colleges might be adopted.

Turning to the duration of the course for graduates, some people are of opinion that it is too short. Under existing conditions no time can be spared for any work outside the specialised courses. As has already been noted, specialization is a feature in the training of graduate teachers, and the general opinion is that the system has produced satisfactory results. But there is a danger of teachers being led to consider that their own special subject is the one subject of importance in the school curriculum and to attach undue weight to it. If the course were lengthened it

would be possible to afford students opportunities of becoming acquainted with the other school subjects. There would be no difficulty in planning a series of lectures on the general methods to be adopted in teaching physics, chemistry, mathematics, history, geography, etc., which would appeal to the teacher who was a specialist in only one of these subjects and which would enable him to arrive at an estimate of the importance of each subject of the high school course. Time would also be found for observing the teaching of the school staff and for attending model and criticism lessons. There might also be greater facilities for practical work, although I am of opinion that, in the Teachers' College, little can be done in this direction until the number of graduates under training is reduced. This reduction can only take place by opening new training colleges, or by attaching new collegiate grade training classes to existing first-grade colleges which have the necessary accommodation, staff and equipment. As an experimental measure such a training class has been attached this year to one of the aided first-grade colleges in the south of the Presidency and, in all probability, the experiment will be continued. By the opening of the Training College, Rajahmundry, and of the collegiate grade section attached to the first-grade college, the number of stipendiary graduate students under training has been increased from 100 to 170. In so far as the graduate in physics or mathematics is concerned, the colleges at Saidapet and Rajahmundry meet the demand for admission. It is when we consider the claims of the history graduate that the difficulty is felt, a difficulty which has to a certain extent been met by the opening of the training section mentioned above.

It must not be understood that I am advocating a two years' course for graduates. The one year spent by teachers in a training college has been productive of good results. All I would urge is greater facilities for practical work. The solution does not depend so much on the lengthening of the course as on a smaller number of students under training. The department has deliberately adopted a policy of encouraging teachers to undergo a course of professional training, and by means of generous allotments for stipends has made it possible to admit teachers in large numbers into training colleges and schools. The end in view in this Presidency has been to provide schools with as many

qualified and certificated teachers as possible, and we have aimed not so much at turning out ideally trained teachers as at helping to put teaching in schools on a sounder and more efficient basis by affording managers opportunities of improving the qualifications of the members of their staff by sending them for a course of training. I feel that if large numbers of teachers can be brought to the threshold of the science and art of teaching and can be guided on their way much has been done towards giving them a foundation on which, with the experience in store for them in their own schools, they may build up systematic courses of study and rational methods of procedure I am conscious of the defects of our existing system, but at the same time I consider that it would be a retrograde step to lengthen the course at the expense of the numbers to be admitted into colleges and schools.

It is impossible to forecast the time when it will be possible to have smaller classes under instruction Many trained graduates and undergraduates will be required for the secondary schools that will be opened year after year, and it will tax the existing training colleges and schools to meet the demand. The department may therefore be expected to continue its policy of a one year's course for graduates confident that the benefits of the past will be maintained in the future

THE TRAINING OF TEACHERS IN THE UNITED PROVINCES.

Teachers for Vernacular Boys' Schools.

I. Grades of schools.

There are two grades of vernacular schools in the United Provinces, *primary* and *middle* The former is the public school for the mass of the people. The length of the course is five years. A boy should leave the primary school "able to read and write a letter, to understand simple prose, to make out the writing of a lease, to keep simple accounts, to follow a map, to work out an easy sum in interest" and with a knowledge of the "easier passages in the poetic literature of his race." The middle school aims at providing a secondary education in the vernacular. Its curriculum is an extension of that of the primary school and leads up to the *vernacular final examination*, the syllabus for which consists of vernacular literature and grammar, mathematics (the whole of arithmetic and the substance of Euclid books I, II and III), geography (the world), the history of India, and drawing *or* the second vernacular.[1]

II Demand for teachers.

Number of trained teachers required.

The number of teachers in vernacular primary and middle boys' schools on the 31st March 1917 was approximately 24,000. The rate of wastage, taken at 6 per cent of this number, is about 1,400 per annum. New schools are being opened at a rate which requires about 1,000 additional teachers each year Hence the total number of teachers now required annually is approximately 1,400 (for wastage) *plus* 1,000 (for expansion), *i.e.*, a total of 2,400. In five years (*i.e.*, in March 1922) the total number of teachers in vernacular boys' schools will probably amount to about 29,000.[2] The wastage taken at 6 per cent of this number, will be roughly 1,700. Thus in 1922 the annual demand for teachers will be approximately 1,700 (for wastage) *plus* 1,000 (for expansion) *i.e.*, a total of 2,700.

[1] In the United Provinces there are two vernaculars, Urdu and Hindi

[2] There is now (October 1918) under preparation a scheme of expansion which goes considerably beyond this number.

III. Supply of trained teachers.

Existing facilities.

Institutions for the training of teachers for vernacular boys' schools are of two kinds, ***training classes*** and ***normal schools***

Training classes are district institutions financed by the district boards; they train teachers for primary schools. In no district are there less than two training classes and in some districts there are as many as nine. There are at present 267 training classes in the 48 districts of the province The course is for one year. The total number of students under training in training classes during the session ending March 1917 was about 1,810. Nearly 50 students each year enter normal schools after having passed through the training class course, and this number should therefore be deducted from the training class output There is also wastage on account of permanent failures and withdrawals. A deduction of 10 per cent. would probably cover the wastage from all causes. Thus the annual available output of trained teachers from training classes is at present about 1,630.

Normal schools are as a rule divisional institutions, financed from provincial funds; there are at present seven in the ten divisions of the province. They train teachers for middle schools, the staff of training classes, and a proportion of the headmasters of primary schools; a small number of their students find employment as teachers of vernacular in English schools The course is for two years The annual output (allowing for wastage, which is small) is about 300.

Are existing facilities sufficient for present needs?

Thus the output of vernacular trained teachers amounts to about 1,630 from training classes and 300 from normal schools, *i e.*, a total of 1,930. We saw that the demand for trained vernacular teachers is about 2,400. Our present supply of trained teachers therefore is deficient by about 20 per cent of the demand

Extension of facilities for training.

It is not possible to increase the accommodation at the existing normal schools The present enrolment is as large as is feasible from the point of view of providing practice in teaching. It has been suggested that the course might be reduced to one year. But there are objections to this proposal. It is impossible in less than two years to give youths who have passed only the vernacular final examination the necessary professional and literary training required to qualify them for service as teachers in

middle schools. Moreover it is a great advantage to an educational institution to have a senior class to carry on from year to year the tradition of communal life. A single year's course makes any continuous tradition impossible. In this connexion it may be mentioned that a conference, summoned in 1910 by the London County Council to consider the question of the training of elementary teachers, reported as follows: "Actual experience proves that a two years course is not only twice as good as a one year course in the way of character building, but many times as good. The increased gain cannot be measured by the mere number of months."

It is proposed to increase the number of normal schools. Within the next five years at least four will be added. The estimated output from these is 140 per annum. Thus at the end of five years the total output from normal schools will be approximately 300 (present output) *plus* 140, *i.e.*, 440.

In five years the total number of training classes may be expected, at the present rate of expansion, to reach 300. The maximum enrolment in a training class is eight. The number of training classes which admit the maximum number is increasing. At the end of five years the average enrolment for the province may be estimated as 7·5 This will give an annual output from training classes of 2,250, or, allowing for a wastage of 10 per cent., approximately 2,030.

Positio the end five ye

Thus in March 1922 the total output of trained teachers will probably be about 440 (from normal schools, *plus* 2,030, from training classes), *i.e.*, a total of about 2,470. We saw that the annual demand for teachers will then be approximately 2,700. Our supply will fall short of the demand by about 8 per cent, which is a considerable improvement on the present position.[1]

Trainin untraine teachers

Of the 24,000 teachers employed in vernacular boys' schools on the 31st March 1917, 11,000 were trained There remain 13,000 untrained teachers now in employment. Of these, 2,600 are employed in private unaided schools, which are rapidly being replaced by board schools. They are usually men with inferior qualifications which would not admit them to a training instruction;

[1] The new programme of expansion provides for an increase in the number of training classes to about 500 at the end of five years.

they may therefore be left out of account. We are thus left with 10,400 untrained teachers in board schools. Of these a considerable number are too old to train, and many have private interests which they are unwilling to forsake even for a year in order to undergo training. Probably it would not be an under-estimate to put the number of 'trainables' from amongst the untrained teachers at about 6,000. It is customary for training institutions to admit teachers in preference to non-teachers, about 90 per cent of the selected candidates are teachers. Hence it is probable that the majority of the present untrained 'trainable' teachers will in due course pass through a training institution.

Courses for untrained teachers

The 'untrainable untrained' is not wholly ignored. According to the rules laid down for district boards, "At suitable times the deputy inspector shall convene meetings of primary school teachers who hold no certificate of a normal school or of a training class. He shall assemble not more than fifteen teachers in any one meeting, no teacher shall be called to a meeting more than twenty miles from his school, and no meeting shall last longer than ten days. The deputy inspector or, in his absence, the sub-deputy inspector shall preside. At the meeting the president and a certificated teacher shall instruct the teachers in the simplest principles of teaching and school management and in matters having a direct bearing upon a teacher's work. The district board shall supply each teacher called to the meeting with a copy of the book on the principles of teaching and school management prescribed for use in training classes." The good resulting from these meetings varies according to the keenness and ability of the deputy inspectors, but, generally speaking, they fulfil a useful function.

IV.—Admission.

Qualifications for admission.

Up to 1916 candidates who had passed the vernacular final examination in either drawing or the second vernacular were admitted to normal schools, but from July 1917 admission to

(i) To normal schools.

normal schools (except the Almora normal school, which serves a purely Hindi speaking division) has been restricted to men who have passed the vernacular final examination with the second vernacular as their alternative subject; this condition ensures that

candidates admitted to normal schools shall have a knowledge of both the vernaculars used in schools.

(ii) To training classes.

In the case of training classes the minimum educational qualification for admission used to be the certificate of a primary school. Experience, however, showed that such candidates were unable to profit by the theoretical instruction in a training class. Admission to training classes has therefore been restricted to men who have passed the vernacular final examination.

How selections are made from amongst qualified candidates.

The most suitable applicants for admission to normal schools are assembled by the deputy inspector and tested by a written examination in languages and arithmetic To ensure a fair representation of Muhammadans the educational test is relaxed in their case.

There is no written examination for selecting candidates for admission to training classes. Candidates are selected by the deputy inspector. Preference is given amongst acting teachers to men who have done good work in the schools, in the case of non-teacher applicants, the factors which determine selection ar previous record at the middle school and personal appearance.

There are two main factors which determine the flow o teachers to training institutions—the prospects in the teaching profession and the amount of stipend given to students in training

In 1914, Sir James Meston, in reviewing the report of [illegible] committee which was appointed to consider the means of extending primary education, said. "The inadequacy of the present pay and the poverty of qualification in the present teachers in primary schools are admitted on all hands A higher standard of intelligence and training, and consequently a decent living wage, [illegible] indispensable conditions of a living scheme of primary education complete in itself and endowing the pupil with something of permanent value to him in after life. From whatever [illegible] future of primary schools is regarded, it is certain that [illegible] will have to be better qualified and better paid." [illegible] the scale of pay recommended for teachers in vernacular [illegible] has been improved. The scale is now as follows [illegible] teachers :—

Headmasters of middle schools .	. A minimum of Rs [illegible]
Assistants in middle schools .	. Rs. 12 to 25 per [illegible]

		Rs.	
Headmasters in primary schools	30 per cent on	14	per mensem.
	40 " " "	16	"
	20 " " "	18	"
	10 " " "	20	"
Assistants in primary schools	40 " " "	10	"
	50 " " "	12	"
	10 " " "	14	"

For want of funds the district boards have not been able to put this scale into complete operation; but they are aiming at it and this fact has probably increased the number of applicants for admission to training institutions. There is at present no dearth of applicants for admission to normal schools, and, generally speaking, candidates are forthcoming in sufficient numbers for training classes. Most inspectors, however, are of opinion that the starting pay of primary teachers is not high enough to ensure a steady flow of suitable recruits to the profession and recommend Rs. 12 as the minimum. Thus the inspector of schools, Lucknow, says: "Considering that unskilled labourers in Lucknow get about five or six annas a day and slightly skilled ones get more and that the earnings of *ekka walas* and *thela walas* are much higher than the earnings of a teacher, the attractions offered for the encouragement of training are hardly sufficient."

(ii) Stipends. Where there are difficulties at present in securing candidates, the reason usually given is the small amount of the stipend In normal schools this is fixed at Rs 8 per mensem, which adequate In training classes the stipend is only Rs. 6[1] The is no doubt that this is too little The chairman, district bo Kheri, writes: "Pupil teachers receive only Rs 6 a mo which is insufficient to support them while away from their ho Their former, by no means high, standard of living is sud reduced and while under training they have of course no tunities of adding to their income such as they undoubtedly and generally utilize while employed as teachers" The in of schools, Lucknow, says: "I believe at least about 60 p of the pupil teachers are married men and perhaps 20 per them join the training class after they are fathers of

[1] The question of increasing the stipend at training classes is under c it is proposed to raise it to Rs 8 per mensem and to depute acting tea pay, with an extra allowance of Re 1 per mensem.

Such men certainly try to avoid going to the training class. I think the rate of stipend ought to be increased to Rs. 8 per mensem."

Is previous experience in teaching desirable?

Most inspectors and headmasters agree that men who have served for two or three years as teachers form the best material for training; they have acquired confidence in facing a class and, knowing something of the difficulties of teaching, they appreciate the guidance of the training class or normal school. Also the risk of mistakes in selection is less in the case of teachers. Thus the inspector of the Kumaun Division says: "Teachers are generally preferred as candidates for training It is considered a decided advantage to have the opportunity of seeing how a man is shaping as a teacher in actual practice before he is definitely selected for training." In the United Provinces about 90 per cent. of the students in training are men with some previous experience. The great majority have served in board schools, a few have gained their experience in aided schools and a few have been deputed from schools in native states. Thus of the 111 students in training at the Moradabad Normal School 102 have had previous teaching experience—94 in board schools, 5 in aided schools and 3 in native states

Age of admission.

Admission to normal schools is restricted to men who are under 25 and not less than 16 years of age. In the case of training classes preference is given to men under 25, but "in default of candidates under 25 years of age vacancies may be filled by those who are under 30 years of age" It is generally agreed that the most suitable age is from 20 to 25. Men under 20 lack ballast, and men over 25 have got out of the way of studying and into grooves from which they are reluctant to move.

Agreement.

Students admitted to normal schools and training classes must sign an agreement to the effect that they will serve for three years in a recognized school in the United Provinces; in default of such service they must refund the total amount received as stipend while under training.

V.—Relations between normal schools and training classes.

Admission of training class passed men to normal schools.

It has been pointed out that about 50 students each year enter normal schools after having passed through the training class course. This looks like a wasteful employment of two distinct agencies. But it is a legitimate ambition for students of training

classes to aim at the higher certificate. Several plans have been proposed with a view to enabling the best of the training class men to go on to the normal schools One suggestion was to reduce the course in normal schools to a single year and to reserve these schools entirely for the pick of students who have already passed through the training classes; another was that there should be an alternative one year course in normal schools for the benefit of such students; and yet a third was to admit training class passed men into the second year class of the normal school. To all these proposals there are objections: To the first that it would mean a considerable reduction in the total number of trained teachers annually turned out, to the second that it would introduce difficulties in the organization of the work in normal schools, to the third that it is undesirable to interject students into the middle of a course. On the whole the third proposal seems the most feasible; the main objections to it can be met by limiting admissions of training class men by means of a competitive examination and by prescribing for this examination the work done in the first year of a normal school. But, in the opinion of Government, a scheme of this kind should be postponed for the present. "It would undesirably reduce the number of normal trained men It will be time enough to experiment with it, if at all, when the educational department has overtaken the demand for head teachers"

VI.—Inspection.

Special inspector of normal schools and training classes.

In 1907 the normal schools and training classes were for purposes of inspection placed under a special inspector, designated the inspector of normal schools and training classes. At first this appointment served a useful purpose The inspector organized the work in normal schools and training classes and gave a stimulus to training throughout the province.

Objections to the appointment of a special inspector.

Experience has shown, however, that a post of this nature outgrows its usefulness and may even be an obstacle to progress. The increase in the number of training classes has rendered their inspection by one officer a physical impossibility. The more conscientiously the inspector tries to do his work, the greater becomes the physical strain, and the less leisure has he to enable him to keep in touch with modern developments in education,

Accordingly he is apt to get into a groove, and there is a tendency for his inspection to reveal itself in the impress of stereotyped formulæ on the training institutions. He also gets out of touch with the general progress of the administration, and when this happens his influence for good declines. An unforeseen result of the appointment of a special inspector has been that the responsibility of the ordinary inspecting staff for seeing that the normal schools and training classes are working properly has been weakened Moreover the divisional inspector and special inspector have not always been in agreement on questions of method and time-table "It would be undesirable," says an inspector, "to make an inspection book the theatre of controversy, in case opinions of inspectors differ. It certainly would be embarrassing to the district inspecting staff, who have to make arrangements to try to follow two masters Again in case the divisional inspector desires to press his own individual views there would be a conflict of authority, which in the interests of good administration is to be deprecated."

Proposed new method of inspection.

A recent conference of inspectors discussed the question and passed the following resolution

"A special inspector is no longer needed for the inspection of normal schools and training classes The inspection of training classes should be left to the ordinary inspecting staff The ordinary inspection of normal schools should be conducted by inspectors and assistant inspectors, and once every three years a specialist should be deputed to visit and report on each normal school" The conference was of opinion that the assumption of full responsibility for training classes by inspectors would vivify their interest in these institutions, and that inspection of normal schools by specialists (*e.g*, the staff of training colleges) would carry weight and inspire confidence

The Normal School.

I—Theory

Subject matter.

The object of the course in *subject matter* is to ensure that teachers have the indispensable equipment—a knowledge of what they are to teach. Accordingly while under training they are taught the vernaculars, mathematics, history, geography, nature

study, drawing, and physical exercises. Except in languages the courses in these subjects do not extend beyond the syllabus prescribed for the vernacular final examination, which all students have passed before entering the normal school. The subjects, however, are taught from the point of view of their presentation to pupils and the study is more thorough than in the middle school. This revision and consolidation of knowledge previously acquired is found to be necessary.

The primary education committee, which met in 1913, reported that teachers were "especially weak on the language side" Accordingly stress is now laid on a thorough study of languages, and the normal school course in these carries students considerably beyond the stage of the vernacular final examination. An effort is being made to encourage students to continue their study of language even after they take up appointments. Thus it is proposed to institute special language examinations for teachers and to take the results of these into account in decisions regarding pay, appointment, and promotion.

The nature study course is in abeyance. At present, there are no teachers on the staff of normal schools who are fit to handle the subject intelligently It is proposed to appoint to the staff of normal schools teachers who have been through a special course in nature study at the Training College, Allahabad

The course in physical exercises consists of the middle school course of *deshkasrat*, revised with special reference to teaching it to pupils, with additional bar exercises. In all the normal schools football and hockey are played, but are not compulsory.

The courses in educational theory are as follows :—

Professional training.

Methods of Teaching.—The methods of teaching the following subjects in vernacular schools :—Languages (reading, spelling, writing, grammar and composition), history, geography, arithmetic, geometry, object lessons, drawing, physical exercises.

School and Class Management.—Preparation of time-tables; home-work; discipline; qualities of good teaching; notes of lessons; questions and answers.

Physiology.—Brief description of the human skeleton and the muscular system; the circulation of the blood; brief description of the nervous system; the digestive organs; the organs and mechanism of respiration; the structure of the eye and ear.

Hygiene.—Lighting and ventilation of the class-room; physical exercises; eye-sight and hearing; causes of mental fatigue; common infectious diseases—their signs and prevention; simple casualties; water, air, and food with reference to their purity.

The Vernacular School Manual.—This book is a reprint of the part of the educational code which relates to vernacular schools for boys.

The text-book prescribed for methods of teaching and school management is Richey's *Manual of Teaching* in Urdu and Hindi. This book was written for teachers in primary schools and accordingly it does not include an account of the methods of teaching history and geometry, and its treatment is too elementary for teachers in secondary schools. But it has been written with breadth of view. A book on similar lines, but more advanced, is required.

The course in physiology is designed to give students a knowledge regarding the structure of the body, to serve as a basis for instruction in hygiene; a text-book is under preparation. Selected masters from the staff of normal schools were sent last year to the Training College Allahabad for a special course in physiology and hygiene.

II.—Practice.

Until recently the work in practical teaching at the normal schools has been far from satisfactory.

Amount of practical teaching.

It was insufficient in amount; the average number of hours of practical teaching in two years was only 50. In England the minimum amount is 120 hours for a two years' training course. The main reason for the small amount of practical work was that the normal schools used for practice by students only one school, the attached 'model school.' There is a limit to the amount of 'practice' which can be tried on a school—especially one that enjoys the epithet 'model.' Even 50 hours per student in two years meant that one-third of the teaching in the model school was done by students in training. Arrangements have now been made for increasing the amount of practical teaching by utilizing, in addition to the model schools, primary and middle schools in the vicinity of the normal schools. In this connexion it is

important to remember that the site for a training institution should always be chosen with reference to facilities for practical work. This has not always been done in the past; thus in one particular case the normal school was established in cantonments on an admirable site from the hygienic point of view, but over a mile from the nearest school, with the result that it was difficult to arrange for more than 15 hours of practical teaching per student per annum.

Supervision of practical teaching.

Another weakness in the practical work was that it was inefficiently supervised. The main cause was the inadequacy of the staff, which for an enrolment of 100 studends in training was fixed at six masters (excluding the teacher of physical exercises). The staff was almost wholly employed in theoretical instruction. The supervision of practical teaching devolved upon the masters of the practising school This arrangement was satisfactory on paper but proved a failure in actual working; instead of systematic training in how to teach there was merely practice in teaching. The masters in the practising schools were men whose qualifications were no higher than those of the students in training; accordingly they were too diffident to offer detailed constructive criticism Their criticism was of a feeble character; it consisted of brief vague comments (*e.g*, 'Your method is fair but your questions are unsatisfactory') interspersed with hackneyed pedagogical formulæ.

Proposed increase of staff in normal schools.

It has therefore been proposed to increase the staff in normal schools from six to eight masters (excluding teachers of physical exercises) per 100 students. This estimate was arrived at after a scheme (to be presently described) had been worked out for the better organization of the practical work. It receives support from the following estimate to be found in the proceedings of the joint committee (1897) on the training of teachers in England: "The general opinion of those who have had experience in the training of secondary teachers gives from eight to twelve as a fair number of students per member of teaching staff." Our estimate is twelve students per member of the staff, and, it may be noted, student-teachers in India require considerably more individual attention than English students, who have in most cases been trained from their youth upwards to

think for themselves and in their school days have usually had before them the example of good teaching.

Excluding periods for revision of work and examinations there are at least 180 working days in the session of the normal school. This total number of working days will be divided into three periods of 60 days each. The 100 students will be divided into 9 batches of approximately 12 students each. For the first period of 60 working days, batch no. 1 will teach daily in the first hour, batch no. 2 in the second hour, batch no. 3 in the third hour; at the end of 60 working days batch no. 1 will be succeeded by batch no. 4, no. 2 by no. 5, and no. 3 by no. 6; at the end of 120 working days batch no. 4 will be succeeded by no. 7, no. 5 by no. 8, and no 6 by no. 9. The classes assigned to the men of each batch will usually not be the classes taught by their predecessors, and the practical work will be so distributed over the practising schools that no particular school will have an undue share.

Proposed organization of practical teaching

The 'hour' above mentioned will really be 45 minutes, the length of a school lesson. Thus each student in the course of a session will have 45 hours of teaching per session, or nearly double the amount formerly prescribed.

Amount of practical teaching per student per session.

According to the above scheme twelve students will be simultaneously engaged in teaching different classes during each of the first three hours of the school day. To supervise twelve teachers simultaneously engaged in 'practice,' at least two members of the normal school staff are necessary. The supervisors will give on an average about eight minutes to each student daily (or, what is better, about sixteen minutes to each student every second day), and in addition will correct notes of lessons and periodically collect student-teachers together to discuss common faults.

Staff required for supervision of practical teaching.

It has been pointed out that the teaching of students will be distributed over the practising schools. It is desirable, however, to restrict the number of schools in use at the same time to two and to put one supervisor in each. If the classes are scattered time will be lost by the supervising staff in going to and fro.

Distribution of practice amongst practising schools.

We are aiming at each student doing 60 periods (each of three quarters of an hour) of teaching per year. To give him practice with different classes and different subjects, it is proposed to divide his

Distribution of student teachers amongst classes

total of 120 periods into five or six spells, each consisting of about 20 consecutive lessons to the same class In some normal schools it was until recently the practice to change the class and teacher about every eight or nine days; the teacher no sooner got to know his boys than he left them.

Teaching of combined classes.

It is frequently necessary for a teacher to have to take two classes, perhaps owing to a shortage of staff in the school, or to the temporary absence of a colleague. We prepare students to meet the difficulties involved in this double duty by requiring each to give at least fifteen lessons to combined classes.

Notes of lessons

One of the common criticisms brought against training institutions of all kinds is that the 'notes of lessons' in vogue are too elaborate. This criticism is frequently justified. In vernacular training institutions especially the 'notes of lessons' are often apparently written with the sole aim of producing a manuscript which is beautiful to look upon. More time is given to elaborate ornamentation than to thought regarding the matter and its presentation to a class. The notes are also often too long and thus tend to make teaching mechanical, for in few lessons is it possible to keep to the precise details of arrangement and procedure which have been prepared in advance; the unexpected is always cropping up. The late Mr. J. N. Fraser of Bombay, writing on this subject, remarked "Very long notes of lessons are a bore and the preparation of them makes teachers weary of the work before they begin it. They should always remain a means, not an end. The end is progress on the part of the boys; and this is to be secured by coming into the class with a fresh elastic mind, not by bringing too elaborate notes and a mind impervious to impressions." Notes of lessons in a training institution are necessarily more detailed than those which an ordinary class teacher would make. They serve the double purpose of aiding the student teacher and of showing the supervising staff how the lesson is intended to be developed; whereas in actual practice a teacher makes notes solely for his own reference. But even with this double aim in view the notes need never exceed one page of foolscap, and when several lessons are being given on the same topic they can gradually be reduced to less than half that length. Orders have recently been issued to the headmasters of normal schools that "notes of lessons should

be brief records of the procedure to be adopted; they should be neatly written but without the elaborate use of rulers and coloured inks."

Criticism lessons.

Another feature of training institutions which sometimes degenerates into an artificial rite is the 'criticism lesson'. A recent report on the training of vernacular teachers in these provinces describes one as follows :—

"As usually conducted the teacher gives an isolated lesson to a handful of little boys; the lesson is given before his fellow students and the headmaster, to whom he first submits a copy of 'notes of lessons' in which he surpasses himself in the manipulation of ruler and coloured inks At the end of the lesson some students are called upon to criticise the lesson and finally the headmaster sums up with a few remarks. The whole proceeding lasts about half an hour. As there are usually not more than six boys in the 'class' there is little to criticise under the head 'class management,' and accordingly the comments are confined to points of method. The students' criticisms are of little value; they lose themselves in side issues."

As a consequence of this report orders have been issued as follows :—"The criticism lesson should be expository rather than critical; the headmaster should use it as the text for a lecture to be given on the same day at some subsequent period. His criticism should be constructive and should cover such points as the special methods of the subject, the suitability of the subject to the class, discipline and class management. The lesson should not be isolated, but should be one of a series which the teacher is giving in the practising school; it should be given to a full class."

Demonstration lessons.

The observation of good teaching is a feature of training institutions in England. "It is expected," says the Board of Education, "that satisfactory provision will be made for enabling students to see work done by teachers of special competence and experience." The value of demonstration lessons has not until recently been fully recognised by our normal schools, but now there are at least six a year in each subject of the curriculum; these lessons are given by members of the normal school staff.

Time table.

Under the scheme of practical teaching now being introduced about one-third of the students will be absent daily from the

normal school for some part of the forenoon—twelve for the first hour, twelve for the second, and twelve for the third. They will thus miss some of the work being done at the normal school in the forenoons To meet this difficulty the normal schools devote the forenoons to 'subject matter', criticism lessons, and demonstration lessons, and confine instruction in professional subjects (methods of teaching, school management, etc) to the afternoons. The 'subject matter' is mainly revision of the middle school curriculum, and therefore students can get up for themselves what they miss by absence from classes; criticism and demonstration lessons are well distributed over the session and thus every student can attend a reasonable number.

III.—Methods of teaching.

The methods of teaching in normal schools are not all according to one pattern, but the following may be taken as typical of various lessons :—

Urdu or Hindi text.

The piece prescribed for the day's lesson is read by the pupils individually, paragraph by paragraph. The teacher criticises the reading and if necessary gives a model reading.

After a paragraph has been read difficulties of vocabulary or construction are elucidated. The class is then questioned on the sense of the passage as a whole.

Sometimes the class is required to give in writing the summary of a passage.

History.

At the beginning of the lesson the teacher gives a brief introduction to connect the facts of the new lesson with the previous course of events.

A summary of the important facts of the lesson is got from the pupils, who usually 'prepare' the lesson at home The teacher amplifies this summary, and by questioning brings out the causes and consequences of events. He uses illustrations, *e g*, sketch maps and pictures, when possible.

The important facts of the lesson are summarised on the blackboards.

An outline map is drawn on the black-board; the pupils copy this in their note-books.

Geography.

The facts of the lesson are given by the teacher with reference to a wall map or to sketch maps on the black-board. Questions are put to bring out the reasons for statements and to compare or contrast new facts with facts previously taught. The sketch map is used to summarise the essential facts of the lesson.

Physical geography is taught in separate lessons but the principles of physical geography are applied in all lessons as far as possible.

Arithmetic.

The teacher begins a new process by oral examples worked also at the black-board. By examining the steps of the process in a number of examples the pupils are led to state the 'rule.' The rule is then applied to more difficult examples, both oral and written, finally it is applied to problems whose solution requires a knowledge also of rules previously taught.

Geometry.

The course in formal geometry is preceded by a course of experimental work. The object of the latter is to lead the pupils to discover for themselves the significance of terms and the properties of figures by series of simple experiments. In this preliminary work importance is attached to neatness and accuracy. The course in experimental geometry is followed by a course of formal propositions, theorems and problems. These are solved first as 'riders', but the proofs are finally learned with steps arranged as in the text-book, but with the figure in a different position and with different letters. The propositions are applied to the solution of 'riders'.

IV.—*Examination.*

The certificate granted to teachers trained at normal schools is called the *Vernacular Teacher's Certificate*. The examination is in two parts, theory and practice.

Theory.

There are eight papers in theory. They are the same for all normal schools and are set and marked by examiners appointed by the Director of Public Instruction. The following statement shows

the length of the papers and the maximum and minimum marks :—

No	Subject.	Time in hours.	Marks	
			Maximum.	Minimum
	First Language			
1	Literature and Grammar	3	50	
2	Unseen and Composition	3	50	
	Total		100	35
	Second Language			
3	Literature and Grammar*	3	50	
4	Unseen and Composition*	3	50	
	Total		100	35
5	Arithmetic, Geometry, Algebra	3	100	33
6	History and Geography	3	100	33
7	Physiology and Hygiene	3	100	33
8	Methods of Teaching and School Management.	3	150	52

There is no written examination in nature study. Fifty marks are allotted to the subject ; these are awarded by the headmaster on the student's record of work This procedure has been adopted in the case of nature study as it was thought that an external written examination would tend to make teachers emphasize the value of information at the sacrifice of right methods of study.

Practice

The examination in practice of teaching consists of three parts :—

(*a*) Class teaching.
(*b*) Drawing.
(*c*) Physical exercises.

* 10 marks in each paper are reserved for penmanship.

It is conducted by a board of three members, appointed by the Director of Public Instruction for each normal school. Formerly the inspector of normal schools was president of all boards, and the other two members were appointed locally for each normal school. If the post of inspector of normal schools is abolished it will be necessary to revise the constitution of the boards. A suitable board would be: A lecturer from a training college (president of all boards) with an assistant inspector of schools and headmaster of a high school as colleagues; the two latter might be appointed locally.

Class teaching.

The headmaster of the normal school submits to the president of the board at least one week before the date of the practical examination a list of three lessons (one on language teaching, one on mathematics, and one on some other branch of the curriculum of vernacular schools) for each candidate. The president then selects from the list one lesson for each candidate; he gives the headmaster at least twenty-four hours notice of his choice.

On the day of the examination the headmaster places before the board a list of candidates arranged alphabetically in four divisions, according as in his opinion, on the record of their work done as students, they are 'first class', 'second class', 'third class', or 'failures' respectively. The board then hears each candidate give a lesson. These lessons must be full lessons, but three or four ma be given simultaneously by candidates to classes in different rooms, the members of the board moving from room to room. If the board accepts the headmaster's opinion it records this opinion as the result of the examination; if it does not accept his opinion in any particular case it calls for a second lesson and then assigns the candidate finally to one of the above four classes

The system described above has been only recently adopted. Formerly the headmaster's opinion was usually not taken into consideration, and the teaching abilities of candidates were assessed as a percentage of marks by an examiner who heard individual lessons, which seldom lasted more than fifteen minutes. This procedure was obviously artificial. It is impossible for any one to estimate as a percentage a candidate's skill as a teacher, by hearing a single lesson Moreover a test of this kind is a formal piece of isolated teaching; it has been well described as being to the actual work of the class-room what the dress

parade is to warfare. The only one competent to pronounce a decided opinion on the candidate's powers as a teacher is the headmaster who has seen him from day to day under ordinary school conditions. If he is not fit to give this opinion he is not fit to be headmaster.

Drawing and physical exercises.

The examination in drawing and physical exercises is conducted on the same principle as the examination in class-teaching; but all students are examined simultaneously. The headmaster of the normal school classifies the candidates into four divisions, as in the case of class-teaching, according to the record of their work as students. The board nearly checks his classification. If the board is unable to accept the headmaster's opinion in any particular case, it sets an additional individual test in this case and then gives a final decision. The test in drawing consists in drawing some common object on the black-board. In testing the candidates in physical exercise the board first sees all candidates perform as a class some exercises in *desikasrat*, and in doubtful cases requires candidates to drill a class.

Conditions for passing

Candidates are required to pass in class teaching and in each branch separately of the examination in theory, as shown in the statement of minimum marks given above; but a candidate who fails in any part of the theoretical examination may be re-examined in the subjects in which he has failed, provided he re-appears for examination within three years of leaving the normal school. Candidates who pass are classified in theory as follows:—

First class . .	Those who get 70 per cent of the aggregate.
Second „ . .	„ „ „ 50 „ „ „ „ „
Third „ . .	„ „ „ 33 „ „ „ „ „

The certificate

The certificate shows the results of the examination in theory and in each branch of practical work, as follows:—

Theory	class.
Class Teaching	„
Drawing	„
Physical Exercises	„

If the candidate fails in drawing or physical exercises he is granted a certificate, provided he has passed in theory and in class-teaching; but his failure in drawing or physical exercises is recorded on his certificate by a line drawn through the space for 'class'. He is, however, allowed to appear for re-examination in

drawing or physical exercises at any examination held within three years of his leaving the normal school; if he then passes an endorsement to this effect is made on his certificate by the inspector.

Results.

On an average about 85 per cent. of the candidates obtain the certificate. The majority of failures are in theory. As failed candidates are allowed to re-appear in the subject in which they fail, the number of *permanent* failures is probably not more than five per cent.

V.—Staff.

The following is a typical normal school staff:—

No.	Designation.	Qualifications.	Pay per mensem.
			Rs.
1	Headmaster	Trained graduate	175
2	First Assistant	Intermediate, trained	85
3	Second "	Matriculation, "	55
4	Teacher of Urdu	Trained at a Normal School	40
5	" " Hindi	" " " "	40
6	" " Drawing	" " an Arts School	40
7	" " Physical Exercises	" " a Normal School	20

This staff is too weak for the work entrusted to it. In England the Board of Education requires that at least two-thirds of the teaching staff in elementary training colleges should be graduates. We might reasonably aim at about the same proportion. The writer suggests the following staff:—

Suggested staff.

No	Designation.	Qualifications.	Pay per mensem
			Rs.
1	Headmaster	Trained graduate	200
2	First Assistant	" "	150
3	Second "	" "	120

No.	Designation.	Qualifications.	Pay per mensem.
			Rs.
*4	Third Assistant . .	Trained graduate . . .	100
*5	Fourth " . . .	" "	80
6	Teacher of Urdu . .	Trained at a Normal School .	40
7	" " Hindi	" " " "	40
8	" " Drawing .	" " an Arts School .	40
9	" " Physical Exercises	" " a Normal School .	30

The total cost of this staff would be Rs. 800 per mensem. To compare this with the cost of the present staff we must add to the latter two assistants (for the supervision of practical teaching) on the present scale, say one on Rs. 70 per mensem and one on Rs. 60 per mensem, making the total cost of the present staff Rs 585 per mensem. The difference between this and the proposed cost is only Rs 215 per mensem. No money is put to better use than what is spent in order to staff normal schools with teachers of the right stamp; their influence permeates not only to middle schools but also through the headmasters of training classes (who are trained in normal schools) to all the primary schools of the province. As the *Times Educational Supplement* said recently: "The elementary training colleges supply the point at which official influence can be most effectively brought to bear upon the daily work of the schools. The young teachers in training are caught at their most susceptible period, so that the educational authority that is skilful enough to manipulate its training college staff can exercise an enormous influence on the discipline, methods and spirit of elementary schools"

Promotion of normal school staff.

The normal school masters are recruited from the staff of English schools, and for purposes of pay and promotion are graded with teachers in these schools; thus transference from school to training work is facilitated and promotion amongst normal school masters is more rapid than it would be were there a separate cadre for them.

*Proposed additional staff for supervision of practical teaching.

VI.—Cost.

The following is a typical year's budget for a normal school with 100 students :—

Normal school budget.

	Rs.
Stipends, 100 at Rs. 8 per mensem for 12 months .	9,600
Servant, 1 at Rs. 8 per mensem for 12 months . .	96
Servants, 4 at Rs. 6 per mensem for 12 months . .	288
Travelling allowance	200
Purchase of books	120
Purchase of prizes	25
Supply of free light to boarders	300
Contingencies (stamps, rates and taxes, punkah coolies, country stationery, purchase and repair of furniture, garden charges, pay of sweepers)	1,600
Total .	12,229

Adding Rs. 585 × 12 for the staff, the total annual cost is approximately Rs. 19,000, or Rs 190 per student under training. Thus, as the length of the course is two years, the cost of producing a trained teacher is Rs. 380.

Cost of producing a trained teacher.

Training Classes.

In 1876 the pupil-teacher system was adopted in the United Provinces. Under this system a candidate for a teachership spent a year partly in study and partly in teaching, under the supervision of the headmaster of a middle school.

The pupil-teacher system

The main objection to this system was that the headmaster had not the time necessary to give instruction to and supervise the work of the pupil-teacher. The latter in fact had to try to learn how to teach as one usually has to learn how to swim, merely 'by practice'; there was little intelligent criticism or guidance.

Objection to the pupil-teacher system

It was decided therefore to form the pupil-teachers into small classes, not exceeding six—now eight—in number and to place each of these classes under a special master, called 'the instructor', who would be responsible for their instruction and training. These classes were called *training classes* The instructor was under the supervision of the headmaster of a middle school and the training class was usually accommodated either in the

The establishment of training classes

building of the middle school or in an annexe to it. The pupil-teachers were responsible for the teaching of the infant classes A and B, and standards I and II of the primary school which was attached as a feeder school to the middle school.

Advantages and disadvantages of training classes

Training classes multiplied rapidly and are now the main source for the supply of trained teachers to primary schools. They are cheaply established and cost little to maintain; they attract teachers who would not be willing to travel any considerable distance from their homes for training, they keep alive the interest of local authorities in training and they distribute the cost of supplying teachers equitably amongst the district boards. On the other hand it must be recognized that the training they give is in some respects inferior to that of a normal school. The outlook of teachers who have never left their own district is narrow, the class is small and therefore the students have little opportunity of emulation amongst themselves, and, as pointed out when the system was first established, they have not the advantage of "contact with the superior experience and intelligence possessed by a normal school staff, or of personally becoming acquainted with the samples of school apparatus and methods of instruction which normal schools are intended to illustrate."

Committee on the training of vernacular teachers

In 1915 a committee was appointed to consider the whole question of the training of vernacular teachers in the United Provinces. This committee carefully enquired into the working of training classes. While it found weaknesses it was of opinion, having regard to financial considerations, that the system was the only one at present practicable for the training of the large number of teachers annually required for service in primary schools, and that, although inferior in some respects to normal schools, training classes are capable of giving a training which well serves the end in view. The committee made detailed suggestions for improvement in their working. In order to explain clearly the purport of these it will be necessary first to point out the defects revealed by the committee.

Defects in the system. (i) Pupil-teachers over-worked.

The pupil-teachers were entirely responsible for the teaching of the four 'lower primary' classes which constituted the practising school. Besides being the staff of the school they were also students preparing for an examination which *entailed hard study*;

they were therefore overworked. Thus the deputy inspector of Cawnpore reported: "There is a general impression that work in the training class is extremely hard without a corresponding material gain. Recently in a class of pupil-teachers the idea gained ground and they conspired to leave the class in a body. In several cases those who have come to the class quite willingly, rather zealously, have resigned on one excuse or another. Secret enquiries have, however, led to the conclusion that hard work in the class is the main reason for such an extreme step."

(*ii*) Insufficient supervision.

The usual method of allotting work in the practising school to eight pupil-teachers was to divide the four classes A, B, I, and II each into two sections, thus providing eight classes. These classes were taught simultaneously. The instructor could see each class on an average for only about five minutes in a lesson period of three quarters of an hour. Not infrequently he confined his supervision to seeing that the classes were kept at work. One inspector comments thus on the supervision exercised by the instructors of his division: "I have seen this very effectively and helpfully done in one instance, but I have generally derived the impression that *nigrani* is interpreted rather casually, and it tends to be loafing while you watch others work, instead of guiding, helping, and keeping up to the mark."

(*iii*) Exiguous classes in the practising school.

In order to receive instruction in theory from the instructor, the pupil-teachers had to be relieved of their duties as teachers for part of the day. This was done by dismissing the school classes at about 12-30. The practising school was thus only a 'half-time' school and was therefore unpopular with parents, who in any case grumbled at their children being taught exclusively by a succession of inexperienced youths. Accordingly the enrolment of the practising schools was small. The 'classes', when divided into sections, frequently consisted of a miserably small handful of five or six boys, so that the pupil-teachers got no practice in handling classes of ordinary size.

(*iv*) No practice with the upper classes of a primary school.

A primary school consists of six classes A, B, I, II, III, and IV, but the practising school comprised only the first four. The 'lower primary' has ceased to be a recognised stage in the system of elementary education; the view of Government is that a school "ought not to be called a primary school until it comprises class IV." The corollary follows that the practising school used for the training of primary teachers should contain classes III and IV,

(v) Dominated by the middle school.

Each training class was under the control of the headmaster of a middle school The headmaster naturally gave most of his time and thought to the middle school for which he was directly responsible. His control over the training class was often little more than nominal, but it was sufficient to deprive the instructor of the incentive and authority to organize the practising school in the way that seemed to him most likely to make it a model of what a primary school should be.

(vi) Inadequate accommodation.

The accommodation was often so inadequate that three or even four classes were taught in the same room.

Minor defects.

There were other defects of a minor character. The pupil-teachers wasted much time in making 'fair copies' of work done in class; these were elaborately ruled with coloured inks and ornamented with beautiful headings. Thus one inspector remarked, "The note-books of the pupil-teachers are beautiful to look upon, and one is led to recall the headmaster who remarked to his sixth form that their note-books were full, their heads empty and their self-content perfect." Following the lead of the normal schools the instructors attached great importance to length and ornamentation of 'notes of lessons', and the criticism lessons in the training classes were conducted in the same artificial manner as in the normal schools.

Reforms.

As a result of the recommendations of the committee referred to above the training class system has been overhauled. Improvements on the lines explained below are now being carried out.

The training school.

The practising school will in future be a self-contained full primary school, independent of a middle school; it will be called a *training school*. The permanent staff of the training school will be a headmaster and two assistants, all trained. The term 'instructor' will disappear. Each training school will admit candidates for training up to a maximum of eight; their time will be occupied partly in teaching and partly in study under the supervision of the headmaster and his two assistants As funds become available the training school will have its own building independent of a middle school.

The following time-table has been issued for guidance of training schools :—

Organization of a training school.

Training Class and Practising School

10—12-15 —(a) Teaching of classes A, B, I, II, and III (or IV) by five pupil-teachers, supervised by the headmaster, and of class IV (or III) by one of the permanent assistant masters.

(b) Study by the remaining three pupil-teachers, of the 'subject matter' part of the course for the certificate under the supervision of the other permanent assistant master.

12-15—12-45.—Interval.

12-45—1-30.—As above for period 10—12 15

Training school

1-30—3.—Instruction in 'theory' of eight pupil-teachers by the headmaster.

Practising School.

1-30—2 —Physical exercises, taught by the two assistant masters (infant classes A and B to be dismissed at 2).

2—3.—Teaching of classes I and II, combined, by one assistant master and of III and IV, combined, by the other assistant master.

Amount of 'practice' by pupil-teachers.

According to the above scheme five pupil-teachers will be teaching simultaneously, the remaining three being engaged in study. The length of the session is forty working weeks. The practical work can be organized as shown in the following table, where 'period' means a period of five weeks continuous teaching and the numbers 1 to 8 stand for the names of the eight pupil-teachers :—

Period. / Class.	I	II	III	IV	V	VI	VII	VIII
A	1	6	3	8	5	2	7	4
B	2	7	4	1	6	3	8	5
I	3	8	5	2	7	4	1	6
II	4	1	6	3	8	5	2	7
III or IV	5	2	7	4	1	6	3	8

Thus each student will get 25 weeks practice of three hours daily, *i.e.*, a total amount of about 450 hours in the year. This, although less than under the former system which required each pupil-teacher to teach continuously throughout the whole year, will produce better results; the pupil-teachers will now teach full classes and will be more carefully supervised by the 'instructor', as there will be only five pupil-teachers teaching simultaneously.

Preliminary instruction of pupil-teachers.

It is an advantage to the practising school and a help to the pupil-teachers if the latter receive some instruction in class management and methods of teaching before they commence 'practice'. It is proposed to arrange for preliminary instruction of pupil-teachers by keeping on at the training school two students each year for a month after they have passed the certificate examination; they will be appointed to primary schools but will be deputed for a month to the training school to assist the permanent staff in teaching the classes of the primary school. This arrangement will give the new batch of pupil-teachers a preliminary month free from teaching: they will spend their time watching the lessons given by trained teachers and will thus learn something about methods of teaching and class management before they take over the classes The above estimate of forty working weeks allows for a month being spent in this way

Teaching combined classes

Each pupil-teacher will be required to put in at least fifty hours practice in teaching two classes simultaneously.

Course in theory.

The theoretical part of the course of a training class is, like the normal school course, in two parts (*i*) subject matter, and (*ii*) professional training.

(*i*) Subject matter.

The course in subject matter consists of a study of the vernaculars, carried well beyond the stage of the vernacular final examination, and a revision of the middle school course of arithmetic, geography, drawing, and physical exercises It is intended to add nature study to the curriculum when the normal schools begin to turn out qualified teachers.

(*ii*) Professional training.

The course in methods of teaching and class management is defined by reference to two elementary text-books (*Risala-i-Talim-o-Tarbiyat* Part I, by Pandit Iqbal Kishen, or *Hadi-ul-Mudarrisin*, by Lala Ladli Das).

Staff.

As mentioned above the permanent staff of a training school will consist of a headmaster and two assistants. They will all

be trained teachers, and the headmaster at least will be normal school trained. The headmasters will be men of proved capacity. Usually they will be selected from middle school assistant teachers, and will never be of less than three years' service Their minimum pay will be Rs. 20 per mensem, but they will obtain regular promotion as if they had remained in the middle school. The two permanent assistants will be paid at the rate usually given to junior assistant masters in middle schools.

These terms are not sufficient to attract to the training schools the best teachers in middle schools. The success of a system depends ultimately on the agency responsible for carrying it out—a truism not infrequently ignored in educational administration. Thus the most important question in regard to training schools is how to secure for the staff men of energy and capacity. Special allowances will probably be necessary in order to obtain men of the right stamp.

Examination.

The certificate awarded to students who have been through a training school is called the *Primary Teacher's Certificate*: The examination is in two parts, theory and practice, as follows :—

(i) Theory.

No	Subjects.	Time in hours	Marks	
			Maximum	Minimum.
1	*First Language*			
	(i) Literature and grammar	2½	[illegible]	..
	(ii) Unseen and composition	1½	50	..3
	TOTAL		120	40
2	*Second Language.*			
	(i) Literature and grammar	2½	50	...
	(ii) Dictation and penmanship	½	30	...
	TOTAL	...	80	27
3	Arithmetic	2½	50	17
4	Geography	2½	50	17
5	Methods of teaching and school management.	3	100	33

Candidates are required to pass in each branch separately as shown in the statement of minimum marks given above; but a candidate who fails in any branch may be re-examined in that branch at any subsequent examination within three years of leaving the training school. To obtain a 'first class' in theory a candidate must get 70 per cent. of the possible aggregate, for a 'second class' 50 per cent, and for a 'third class' 33 per cent.

Formerly the question papers were set and the answer books marked by the deputy inspectors for all candidates in their respective districts, but this was found to be unsatisfactory, as there was no uniformity either in the type of questions set or in the standard of marking. Now there are uniform question papers, set for the whole province by examiners appointed by the Director of Public Instruction. The examination is held on the same dates at suitable centres, one for each district. The answer books are sent for correction to the headmaster of the normal school served by the district and are distributed by him for marking amongst his assistants, who are paid a small fee for the work. Thus the question papers are the same for the whole province and the standard of marking the same in each division; this is sufficient uniformity for all practical purposes The total cost for the examination of answer books amounts to about Rs 1,300 for the whole province

(ii) Practice. The practical part of the examination is conducted at the training school by a board consisting of the deputy inspector, a sub-deputy inspector, and the headmaster of a middle school. It consists of three parts (1) class teaching, (2) drawing and (3) physical exercises, and is conducted on the same principles as the practical examination at normal schools.

The certificate. The primary teacher's certificate shows what 'class' the holder obtained in theory, class-teaching, drawing, and physical exercises respectively. A candidate who passes in theory and class-teaching but fails in drawing or physical exercises is granted a certificate, and may appear for re-examination in these subjects at any examination held within three years of his leaving the training school; if he passes in drawing or physical exercises at this subsequent examination his success is recorded on the certificate by the deputy inspector.

Assuming that the stipend of students is raised from Rs. 6 per mensem to Rs. 8 per mensem we may estimate the total cost of a training school as follows:—

Cost.

	Rs	
Headmaster at Rs. 25 per mensem . .	300	per annum.
First assistant at Rs. 14 per mensem . .	168	"
Second assistant at Rs. 12 per mensem .	144	"
Stipends for eight pupil-teachers at Rs. 8 per mensem each	768	"
Repair of furniture and purchase of appliances	10	"
Repairs of buildings	30	"
House rent for 'hostel' (including miscellaneous expenditure)	24	"
Contingencies (ink, paper, chalk, etc.) . .	15	"
Library grant	5	"
TOTAL .	1,464	"

To arrive at the nett cost of training a student we must remember that the training school serves a particular area as a full primary school. The minimum annual cost of the latter may be estimated as follows:—

Cost of producing a trained teacher.

	Rs.	
Headmaster at Rs. 16 per mensem . .	192	per annum.
First assistant at Rs. 14 per mensem . .	168	"
Second assistant at Rs. 12 per mensem	144	"
Third assistant at Rs. 12 per mensem . .	144	"
Contingencies and repair of furniture . .	15	"
Repairs of building	15	"
TOTAL .	678	"

Thus the nett cost of a training school for eight pupil-teachers is Rs. 786 per annum or approximately Rs. 98 per student in training.

Teachers for English Schools for boys.

I.—Demand for trained teachers.

Number of class teachers employed in English schools for Indian boys.

The total number of teachers employed in English schools on the 31st March 1917 was 3,084, of whom 628 were trained and 2,456 untrained. About two-thirds of the total were ordinary class teachers and teachers of mathematics and science to whom the regular system of training applies, the remainder being teachers of classical languages, physical exercises and special subjects such as drawing, commerce and manual training. There were thus about 2,000 class teachers, of whom about 600 are trained.

Wastage

The wastage (due to retirement, death, the counter attractions of the legal profession, etc.) on this number may be reckoned at 6 per cent or 120 per annum.

Requirements for expansion

It is not easy to estimate the probable rate of expansion of English schools. Government has not assumed direct responsibility for the provision of secondary schools beyond the upkeep of 'model schools', one in each district. These schools have already been established in most districts. They will doubtless grow in size and some new ones will be added, but the rate of increase in their enrolment is a diminishing figure. It will probably be safe to allow for an increase of 3,000 pupils in government schools during the next five years, *i.e.*, for an increase of 600 per annum. It is impossible to calculate with any exactness the increase of enrolment in aided schools; a reasonable estimate would be an increase of 50 per cent greater than in government schools, *i.e.*, about 900 pupils per annum. Thus the total rate of increase in the number of pupils in English schools during the next five years may be estimated at 1,500 per annum. The average number of pupils per teacher is 30. Hence for expansion we require 50 new teachers each year.

Thus the total annual demand for teachers in English schools is at present 120 (for wastage) *plus* 50 (for expansion), *i.e.*, 170.

Demand after five years

At the end of five years the total number of class teachers employed in English schools will probably be about 2,250. The wastage on this number at 6 per cent is 135 per annum.

To allow for expansion at least 50 additional teachers per annum will be required. Thus at the end of five years the demand by these schools for trained teachers will be about 185 per annum.

II.—Supply of trained teachers.

There are at present in these provinces two colleges for the training of teachers for English schools, the Allahabad Training College and the Lucknow Training College. Both are Government institutions; the former is a university college confined to graduates; the latter is a departmental college for the training of undergraduates. The length of the course at the Allahabad college is one academic year. The enrolment when the college started eight years ago was only 26, but it is now 60; the annual output (excluding permanent failures, men required for the inspectorate, and men who take service outside the province) is about 50. The Lucknow college has a two years' course for students who have passed the school leaving certificate examination and a one year's course for those who have passed the intermediate examination of the university. The annual available output of certificated teachers from the Lucknow college is about 30. Thus the total output of trained secondary teachers is at present 80, *i.e.*, about 50 per cent. of the number required.

Present output of trained teachers.

It is proposed to build at Agra an additional training college for undergraduates. The plans have already been prepared and the funds provided for this college; it will probably be opened next year. The annual available output will be the same as that of the Lucknow college, *viz.*, 30. To keep pace with the demand for trained teachers we shall have to provide, in addition to the Agra College, two new colleges, one for graduates and one for undergraduates. Our total output from five colleges—two for graduates and three for undergraduates—would be 50 × 2 + 30 × 3, *i.e.*, 190. We saw that the demand for trained teachers at the end of five years would be about 185 per annum. The five colleges would meet this demand and would in addition provide for the requirements of the inspectorate and foreign service, but there would be no surplus for the replacement of untrained by trained teachers.

Proposed additional colleges.

Undergraduates with the school leaving certificate qualification are forthcoming in sufficient numbers, but it is by no

Inducements to train.

means certain that we should be able to fill two colleges with graduates. The stipend given to graduates in training—Rs. 20—is sufficient to maintain them; but, as many are married men with families, the provision of a bare sustenance allowance while under training is no great inducement. The only certain means of attracting suitable men to the training colleges is to make the teaching profession more attractive. What His Excellency the Viceroy said * about Indian teachers in general is true of the great majority of graduate teachers in the aided schools of these provinces. They regard the work of teaching "as a form of employment which will keep the wolf from the door until . . . some other permanent occupation can be secured." "This" said His Excellency, "is not as it should be. The profession of teaching is a great and honourable profession, and it should engage the whole attention of those who follow it. But this is not likely to be the case as long as teachers are paid an inadequate wage. If we are to divert students to this work we must increase the pay and opportunities of our teachers and magnify the status of the teaching profession."

III.—Types of Training Colleges in the United Provinces.

The old training college at Allahabad

Prior to 1909 there was only one training college in the United Provinces. It trained three grades of teachers, matriculates, 'intermediates', and graduates. The matriculates had a two years' and the others a one year's course. There were two classes, a 'junior class' comprising only matriculates in their first year and a 'senior class' comprising matriculates who had passed through the junior class, 'intermediates', and graduates. There was a marked gap in attainments between the graduates and undergraduates, especially in English, and it was therefore found impossible to frame a course which was stimulating for the former and at the same time not beyond the capabilities of the latter. Moreover the work for which the graduate had to be trained was not precisely the work which would be required of the undergraduate The graduates usually teach in the high section of the school and the undergraduates in the middle or primary section; the work of the former is essentially 'secondary', of the latter 'elementary'.

* Convocation address to Calcutta University.

Needs of elementary and secondary teachers.

While much that is fundamental to all education may be taught simultaneously to both classes of students there are good reasons for differentiation between the courses for elementary and secondary teachers. Thus Mr. H. Sharp says * : "The elementary teacher has a limited ground-work of knowledge; he has not been fitted by a university career for the appreciation and application of general principles . . . The secondary teacher possesses a greater breadth of knowledge and (presumably) a higher power of applying abstract truths . . . The elementary teacher will be called upon to manage children whose age and forms of thought are far removed from his own . . . The secondary teacher is not confronted with this difficulty; those with whom he will come in contact are of an age and a mode of thought more closely akin to his own. The child in the formative stage requires concrete facts, direct instruction, plain and imperative discipline. The youth in the stage of orientation requires power of arranging facts, instruction by suggestion, a reasonable discipline based on compromise The course of training suitable for an elementary teacher should therefore aim, not at great width of knowledge but at a large amount of practice, at general methods of teaching all elementary subjects, at a uniform concrete and empirical methodology in each particular subject . . . at the psychology and physiology of childhood. Against this, the course laid down for secondary teachers should comprise wider general knowledge with some highly specialised knowledge, . . . theoretical and scientific methodology not categorically presented, but of sufficient variety to permit of choice and adaptation; studies calculated to enable him to produce enthusiasm and habits of orderly thinking in his pupils; the psychology and physiology of adolescence."

Break up of the old college into two, one for graduates and the other for undergraduates.

Experience showed that it was necessary to recognise the line of demarcation between the training of graduates and undergraduates, and in 1909 it was decided to break up the college at Allahabad and to establish two new training colleges, one for graduates only at Allahabad and the other for undergraduates at Lucknow.

* Occasional Reports No 5 *The Training of Elementary and Secondary Teachers*, p. 93.

The Government Training College, Allahabad.

Connexion with the University.

The Allahabad Training College is affiliated to the Allahabad University for the degree of licentiate in teaching. There are undoubtedly drawbacks* in this relationship; the courses are determined and the examination conducted by a body which knows little about the internal working of the college and examinable knowledge is likely to count for more than the capacity to manage and teach a class. But in practice we have not felt these disadvantages, as the university has given us almost as much freedom as we should enjoy were we, like the secondary training colleges of England, a part of a 'teaching university'. Moreover the college staff is represented on the board of studies, on the board of moderators in teaching, on the faculty of Arts and on the Senate, and the principal has a considerable voice in the award of the degree The only serious objection to the university connexion is that the written part of the examination is conducted by examiners who have little or no knowledge of the methods of teaching adopted by the staff; in some years this has led to results inconsistent with the college records The value of the university connexion is that degree is regarded by entrants to the profession as a distinction more worth striving after than a departmental certificate. It therefore attracts graduates to the college; when it was instituted the number of graduate candidates for training at once rose from six to about thirty

Admission.

The college admits graduates of the University of Allahabad, and graduates of other universities who have been resident for at least three years in the United Provinces. It is open to both men and women. Candidates who are over 30 years of age are not usually accepted. The number of men students is restricted to 60; this number has been fixed as the maximum for whom satisfactory arrangements for practical teaching can be made. The number of women candidates is small—never more than six; separate arrangements are made for their practical work. Applicants from native states are admitted when there is room.

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* *Vide* Occasional Reports No 5, *A Report on the Bombay Training College for Secondary Teachers*; by J Nelson Fraser, p 140

Stipends.

There are 54 stipends of the value of Rs. 20 per mensem. A few untrained graduates who are serving in Government schools are deputed on half pay. As a rule candidates are not willing to come without a stipend. This year there were in all 66 suitable men applicants from the United Provinces. Of these 4 were deputed teachers; of the remaining 62 none was willing to come without a stipend. As there were only 51 stipends available for men (three of the women candidates were stipendiaries) we enrolled only 55 men (51 stipendiaries and 4 deputed teachers) although there was room for 60. The vacant places were offered to applicants from native states. It is proposed next year to increase the number of stipends to 60. Three or four will be given to women and thus there will be a few vacancies for deputed teachers or applicants from native states.

Method of selecting candidates.

Candidates present themselves before the Inspector of the division in which they reside They fill up a form giving the following particulars: age, caste, length of residence in the United Provinces; nature of degree; qualifications in games, how employed since graduation. The Inspector adds his remarks and forwards the form, together with copies of the candidate's testimonials, to the Principal, who then makes his selection Candidates who have been teaching for one or two years are preferred to non-teachers, but those with a good college record are admitted even if they have had no experience of teaching, as otherwise they might be lost to the teaching profession. Of the men students admitted this year only nine are without previous experience in teaching; women candidates are usually non-teachers.

Quality of candidates admitted.

A question even more difficult than how to secure sufficient graduates for training is how to secure the right kind of graduate. At present we are not getting satisfactory material. About 80 per cent. of the applicants for admission are men with a third class degree, and in the nine years of our existence we have had only four M.A.'s. and one M. Sc. We occasionally get good students who have taken to teaching out of love for the work, but, as already pointed out, graduates of ability are reluctant to prepare themselves seriously for a profession which offers few attractions to ambitious men. At present all trained graduates in government service start on the same pay, Rs. 70 per mensem. One way of attracting better men to the profession would be to have a

scale of initial pay graduated according to the academic qualifications of candidates. It is difficult now to find Indian teachers fully qualified for the more important headmasterships and for the higher appointments in the inspectorate which are open to them. This difficulty will increase as the number of these appointments grows unless steps be taken to attract into the schools—the only training ground for headmasters and the best training ground for inspectors—men of higher ability than that connoted by a third class pass B.A. degree.

Agreement

Students are not required to bind themselves to serve as teachers. A bond to this effect is difficult to enforce, and as a matter of fact only five of the students who graduated from the college in the period 1910—1916 have subsequently taken to employment other than teaching.

The only agreement we make students sign is to the effect that (1) if they leave the college for any reason other than ill-health they will refund the amount which they have received as stipend, and (2) they will not study for or enter their names for any examination other than the L.T. examination while they are at the college.

The course in 'theory.' (i) Compulsory.

There are four compulsory subjects, as follows:—

1. *Principles of Teaching.*—(a) A general treatment of psychology such as is found in an elementary text-book of the nature of James' 'Talks to Teachers.'

(b) Further treatment of the following points, dealing especially with their reference to the actual work of teaching :—

The presentative and representative elements of consciousness; association and apperception; interest, attention and memory; the main mental differences between childhood and adolescence.

2. *History of Education.*—Outline study of the educational theories of the following.—Comenius, Locke, Rousseau, Pestalozzi, Froebel, and Herbart.

3. *Methods of Teaching.*—Methods and apparatus suitable for the teaching of the various subjects of the curriculum of secondary schools in India.

(4) *School Management and Hygiene.*—(*a*) Home-work; note-books; correlation of subjects; discipline and class management; class records; time-tables.

(*b*) Common infectious diseases, their signs and prevention; simple casualties; eyesight and hearing; fatigue; natural ventilation; arrangement of class rooms; school furniture; physical exercises.

The value of the history of education and psychology in a training college curriculum is sometimes questioned, and it is therefore perhaps desirable to state what we regard as the main aims of these courses.

Value of the course in the history of education

The history of education is open to the objection that it lends itself to cram; it is an examinable subject. But our experience is that a study of the lives of the great educational reformers has a stimulating effect on students. The history of education is more than a record of the gradual development of educational ideals; it is a record also of personal service in the cause of education. A study of the lives of the great reformers gives a new point of view to men who frankly say on their admission to the college that it is their 'hard fate' to enter the teaching profession.

Value of the course in psychology.

In the course on the principles of teaching we do not attempt a deep study of psychology. Every problem of psychology is not of equal value to the teacher; but he must understand "how learning is possible at all, the nature of the process, and so . . . what hindrances there are to learning, and how they may be overcome, . . . how the mind strengthens and develops from infancy upward, how children naturally think and feel and act at successive stages of school life, what occupations and forms of instructions are suited to their growing powers at these various stages.*" These are all questions a study of which throws light on the practical problem of how to manage and teach a class.

Supplementary course in hygiene.

The course of lectures on hygiene is delivered by one of the college staff. It is supplemented by 20 lectures, delivered by a medical officer, on the following topics:—

Lectures on first aid. Application of the lectures:— Bandages and their application to sprains, wounds,

* Occasional Report No. 5:—*Training Institutions for Secondary Teachers in the United Kingdom*, by H. R. James

boils, etc ; splints, and their application to fractures; arrest of bleeding; artificial respiration in cases of drowning, etc.; stretcher drill with reference to accidents and severe illness; sight testing in order to determine whether a boy needs the attention of an occulist; nursing chart; clinical thermometer and its variations, temperature chart; periods during which children should be excluded from school in the case of measles, chicken pox, small pox, diptheria, whooping cough, mumps, enteric fever; the furniture, bed and bedding of a sick room; disinfection of a sick room; urinals and latrines, spittoons, how to keep and to dispose of sputum; expectoration and vomited matter.

(ii) Optional 'special subjects.'

In addition to the four compulsory subjects, students are allowed to specialise in the methods of teaching one of the following subjects: history, geography, mathematics, physics and chemistry, nature study, manual training A notable omission from this list is English. The reason is that owing to the important place English occupies in the school curriculum special attention is given to this subject in the compulsory course on the methods of teaching, and therefore an additional special course is not considered necessary. The science course is restricted to science graduates, the history course to students who have taken history as a subject for the B.A. degree and the mathematics course to those who have graduated in mathematics. The general principle which we try to enforce is that the special qualification should connote a knowledge of the subject matter as well as a knowledge of the methods of teaching it. Students who are not qualified to take up science, history, or mathematics may elect to take nature study, or geography, or manual training, in which at present we cannot lay down any preliminary qualifications. About 90 per cent. of the students choose some special subject. No student is allowed to take more than one subject, but the university has recently passed a regulation to the effect that licentiates in teaching may return to the college for 50 working days to study an additional special subjects; if successful in the examination in this subject they have their diplomas endorsed accordingly.

The only special course to which students other than candidates for the L. T. degree are admitted is the course in manual training. We admit to this course men who have passed the intermediate examination of the university, and, for special reasons, men with lower qualifications. They receive stipends of the value of Rs. 15 per mensem and, if they satisfactorily complete the course, are awarded a departmental certificate which qualifies them to teach manual training in a high school. Hitherto this scheme has failed to attract many students, probably because as yet there is no great demand for teachers of manual training. During the past four years seven certificates have been awarded—all to men admitted without the Intermediate qualification.

Reasons for the inclusion of special subjects in the curriculum.

There are two main reasons for including special subjects in the curriculum :—

(i) There is a movement in the schools in favour of specialisation Thus there are specialists in history, geography, and science. These specialists are responsible for all the teaching of a particular subject in the four highest classes of the school ; in some cases they also supervise the teaching of the subject in the lower classes. Notwithstanding the difficulties of organization and dissipation of personal influence that result from working a school by specialists, there is much to be said in favour of the system ; the specialist gets to know his subject thoroughly, he often becomes an enthusiast for it and endeavours to keep himself acquainted with new devices or methods for teaching it, and he takes a pride in furnishing his class room with illustrations and apparatus. In order to give a stimulus to this movement we wish to encourage students while under training to specialise in the subject of the school curriculum of which they have a special knowledge or for which they have a marked liking.

(ii) There are some subjects of the school curriculum (*e.g.*, geography, nature study, manual training) for which even graduates have not the teacher's

indispensable equipment—a knowledge of the subject matter. There are other subjects which are studied at the university by methods which are not applicable to school boys. To instruct students in the methods suitable for schools it is not enough to give them general directions; it is desirable that they should revise the subject matter with reference to its presentation to a class. Thus the mathematics teacher should revise the elementary portions of his subject with reference to the experimental treatment which is suitable for junior classes; the science teacher with reference to the use of cheap home-made apparatus. It is impossible in a period of ten months to add to our course of professional training an academic study of all the subjects of the school curriculum. But we can include subject matter in the special courses, and thus ensure thorough revision of at least one subject of the curriculum.

Syllabuses in special subjects

The syllabuses in special subjects are given below The courses in history, geography, mathematics, and physics and chemistry are only briefly summarised, but the syllabuses in nature study and manual training are given in detail as these are new subjects in the curriculum of English schools:—

History.

(i) *Aims and methods.*—Chapters on the teaching of history from the manuals on method by Barnett, Spencer, Adamson, and Welton, and selected portions of "Studies in the Teaching of History" by Keatinge and "Teaching of History and Civics" by Bourne.

(ii) *Practical work.*—Time-charts; maps.

(iii) *Subject matter.*—"Mediæval India" by Lane-Poole; "Gazetteer of India", Volume II, Chapters 7-17; "Rise of British Dominion in India" by Lyall; "India" (especially regarding revenue) by Strachey; and one of the "Rulers of India" series.

Geography.

(i) *Aims and methods.*—"Suggestions for the Teaching of Geography" (Board of Education); "Memorandum

on the Teaching of Geography" (Scotch Education Department); "Report of a Conference on the Teaching of Geography in London Elementary Schools"; selected chapters from "The Teaching of Geography" by Archer, Lewis, and Chapman, and from "The Teaching of Geography" by Wallis.

(*ii*) *Practical work.*—Making of illustrations, maps, diagrams, and models.

(*iii*) *Subject matter.*—The detailed geography, physical and general, of some special region selected on account of its suitability as an illustration of the regional treatment of geography, *e.g.*, South America.

Mathematics.

(*i*) *Aims and methods.*—"The Teaching of Mathematics in Secondary Schools" by Schultze.

(*ii*) *Practical work.*—Practical methods of solving problems in elementary mathematics, use of graphs; graphical statics; practical mensuration and determination of density; problems on the applications of trigonometry to practical surveying.

(*iii*) *Subject matter.*—Revision of the essentials of the school syllabus in mathematics with special reference to teaching it.

Physics and Chemistry

(*i*) *Aims and methods.*—"The Teaching of Physics and Chemistry" by Smith and Hall

(*ii*) *Practical work.*—The chief experiments of the school course revised with reference to the points to which special attention should be directed in teaching pupils and to the use of simple home-made apparatus; glass working; woodwork (to enable the science master to construct or repair apparatus).

(*iii*) *Subject matter.*—Revision of the essentials of the school syllabus with special reference to the conduct of lecture-table experiments.

Nature Study

(*i*) *Lectures.*—On the aims and methods of nature study, and the principles underlying the teaching of the subject. The following topics have special treatment:—relation to observation lessons and to science; school gardens; excursions; collections; calendars; use of books; schemes of work; correlation with other school subjects, especially English, geography, manual training and drawing.

(*ii*) *Aims and methods.*—(*a*) "Suggestions for the Teaching of Nature Study" (Board of Education); (*b*) "Memorandum on the Teaching of Nature Study" (Scotch Education Department); (*c*) "Aims and Methods of Nature Study" (Rennie); (*d*) Selected chapters from:—"Nature Study and the Child" (Scott), "Practice of Instruction" (Adamson), "Principles of Teaching" (Welton); (*e*) Articles in journals, as directed

(*iii*) *Teaching.*—(*a*) Practical teaching by the students; (*b*) Demonstration lessons; (*c*) Criticism lessons

(*iv*) *Practical work*—Students will pursue a course of practical nature study. The objects of this course are:—(*a*) To give the students some knowledge of subject matter; (*b*) To illustrate the methods of pursuing the study of the subject

The course is as follows.—

I Some plant studies: How a plant grows, performs its cycle and dies What this cycle is. Growth of some large seeded plant, *e.g.*, kidney bean, for continuous observation and for giving knowledge of parts. Study of whole growth, observation of the conditions under which plants thrive; adverse conditions. Experimental growth under varying conditions of (*a*) soil, (*b*) water (*c*) light, and (*d*) air. The great function of plant life—propagation. The flower and its relation to the cycle—flower, fruit, seed. Fertilization and its meaning. Flowers and attractiveness. Observation of flowers to investigate relationship of insect life to

flowers. *Study of several trees throughout the session* and a general knowledge and description of several common flowering plants. Some leaf studies to show modifications to withstand climatic conditions. Plants and the way they protect themselves

II. Life cycle of mosquito, butterfly, and frog.

III. Recognition of a number of common birds, (*a*) by form and colour, (*b*) by their notes, (*c*) by their habitat. Relation to life and conditions, as illustrated by colour, beak, shape, etc

Manual Training.

(*i*) *Lectures* on the following topics:—What is educational handwork? Its place in the curriculum Its aims and scope. Its values. Different kinds of handwork. Correlation with other school subjects. Its place in the school time-table. Method in paper and cardboard work. Method in drawing. Method in woodwork. The teacher of educational handwork Hygienic conditions in the workshop. Position of the body. Class management. The workshop; its plan, equipment, arrangement of benches, furniture Timber; its structure, felling, seasoning, shrinking and warping. Changes and decay of timber and means of prevention.

(*ii*) *Practical work*: (*a*) Paper-work; exercises involving folding, cutting-out and modelling. (*b*) Card-board work: exercises involving scoring, use of binding strips, cutting out and mounting. (*c*) Woodwork exercises involving the use of the following tools:—jack plane, try-square, marking knife, marking awl, tenon saw, smoothing plane, bevel square, screw driver, firmer chisel, mallet, bradawl, nail punch, gauge, countersink bit, auger gimlet, frame saw, brace, centre bit, auger bit, turnscrew bit, file, hammer The following joints:—halving, housing, mortising, dovetailing, bridle, tongue and butt. Preparation of models by *students from their own design* (*d*) Care of tools:—the maintenance in good working order of jack plane, smoothing plane, tenon saw, bevel square,

screw driver, firmer chisel, hammer, mallet, bradawl, gimlet, frame saw, spokeshave, brace, bits, files.

The staff.

The staff of the college is as follows:—

Designation	Pay.	Qualifications
	Rs.	
Principal	500—50—1,000	Graduates in Honours of British Universities Trained for and with experience of teaching in secondary schools in Great Britain.
Vice-Principal		
Professor		
Lecturer	200—10—250	Graduates of Allahabad University, Trained at the Training College, Allahabad
Demonstrator in science and mathematics.	100—5—150	
Demonstrator in manual training	75—5—100	
Assistant demonstrator in manual training.	40—5—60	Trained at the Training College, Lucknow.

Practising schools

There are four practising schools One is the Government High School, which is situated in the college compound, and another is on an adjoining site, which was granted to it free of cost on condition that the school admitted students for 'practice'; the remaining two schools are within ten minutes walk Each of the four schools has about 16 classes and 500 pupils. We find that four practising schools for sixty students is about the right proportion, so that on the one hand students may have adequate practice and on the other hand no particular school may suffer unduly from practice by students in training. This view is confirmed by the opinion of Professor Adamson, professor of education in King's College, London, who says* that "in the case of primary teachers one hundred students should have access to seven or eight schools of from 250 to 100 pupils each," and advocates a greater number of secondary schools per hundred students owing to "a more complicated curriculum and the needs of those who intend to become specialists." Professor Adamson insists on the need for a number of practising schools, as otherwise "we shall suffer from the creation of big ineffective institutions placed where they shall be crippled from the outset." He pertinently adds, "A training

* The School World, May 1904.

Approximate dates, to—			31st January				[illegible]
10— 10-45	*Science and Mathematics*—S.	*Manual Training*—M 1 and M 2	*History*—V. P. *Geography*.—Pr. assisted by L. *Nature study*—Pr.				[illegible]
10·45— 11-30			5 of C (3) in II V. P	5 of C (3) in III Pr	5 of C (3) in IV L.	*Criticism Lessons*—P.	
11-30— 12-15—			5 of D (3) in II V P.	5 of D (3) in III Pr.	5 of D (3) in IV L.		

(i) The numbers
(ii) The letters A brackets show whether a particular group is in its first, second
or third m
(iii) The number = Principal. V P. = Vice-Principal, Pr = Professor, L. = Lecturer,
S = Demo
(iv) During the each day in the use of the blackboard by the Demonstrator in
Manual Tr

college which contained so many students that it could not find enough pupils for practice would be as useful for its special purpose as a medical school in the Hebrides."

The Government High School is for administrative purposes under the control of the principal of the college. Besides being one of the practising schools it serves the purpose of a demonstration school. The college staff, with the co-operation of the headmaster, carry out experiments with the aim of demonstrating to students the possibilities of methods of teaching advocated in college lectures. Thus we have introduced the direct method of teaching English and practical work in geography, nature-study, and science; we have also added manual training to the school curriculum as a compulsory subject in all classes up to class VIII. The headmaster delivers to the students a course of lectures in which he draws their attention to the means which he adopts to improve the organisation, discipline and corporate life of the school.

Demonstration school.

The college hours are from 10 A.M. to 3-15 P.M. The forenoon session is divided into three periods, 10—10-45, 10-45—11-30, 11-30—12-15; then comes an interval of three quarters of an hour; the after-noon session consists of three periods, 1—1-45, 1-45—2-30, 2-30—3-15. The forenoon session is devoted to practical teaching (including demonstration and criticism lessons) and special subjects; the afternoon session to lectures on the compulsory subjects of the course. The time-table on page 75 A shows how the forenoon work is organized. The students are divided into four groups of 15 each. Each group teaches for one period per day for 25 working days, i.e., each student has practice in teaching amounting to 75 lesson periods of three quarters of an hour each, or about 50 hours, in the session, in addition to attendance at demonstration and criticism lessons. The Government High School being close at hand is used exclusively in the rains, thereafter the practical work is distributed over the four practising schools.

Organisation.

When free from practical teaching the students devote all their time in the forenoon to their special subjects. For part of the session they work at these independently without assistance from the staff, but in every special subject there is a certain

amount of formal instruction by the staff; in science and manual training, on account of the large amount of practical work, there is continuous supervision by the staff throughout the whole session The students who do not take up any special subject are usually men who are below the average in physique and mentality; when free from practical teaching they devote their time in the forenoon to reading in the library.

Arrangements for women students.

The women students attend lectures both in compulsory and special subjects with the men. The 'practice' by women students is conducted at the local European and Indian girls' schools It is supervised by the assistant to the chief inspectress; her services are lent to the training college for three months each year for this purpose.

Corporate life.

All students are required to live in the hostel, which is under the direct supervision of one of the Indian members of the staff. The principal and vice-principal have bungalows in the college grounds and therefore are easily accessible to the students in out-of-college hours. Considerable attention is given to athletics. Hockey, football, and cricket are played; these games are organized by the vice-principal who plays in all matches A bungalow is being built in the grounds for the third Indian educational service member of the staff; when he comes into residence he will conduct in the early mornings a formal course of physical exercises on the lines of the scheme suggested by the Board of Education, England, modified to suit Indian conditions.

A literary society meets once a fortnight in the cold weather, and once each year there is a reunion of old students.

Examination

The written part of the L. T. examination is conducted by external examiners. The college has no voice in determining results in the case of compulsory subjects, but in special subjects the principal's opinion on the candidates' work, done throughout the session at the college, carries considerable weight. The practical examination is conducted by two examiners appointed by the university; the principal submits to them an expression of opinion about each candidate and a recommendation as to the class—first, second, third, or failure—in which he should be put. The examiners hear two lessons by each candidate and then give a final decision. Their results are in general agreement with the recommendations of the college.

The average percentage of passes for the last eight years has been 85. As students who have failed only in theory are allowed to reappear for the examination as private candidates the percentage of students who obtain a degree sooner or later is about 90.

Subsequent career of students

During the years 1909-10 to 1915-16, 186 men have taken the L.T. degree from the college Of these, 93 are serving in the educational department of the United Provinces—6 on the inspectorate, 3 as headmasters, 5 as professors, and 79 as assistant masters; 60 are employed in aided schools in the United Provinces,—20 as headmasters, and 40 as assistant masters; 13 are employed in other provinces or in native states; 5 have left the teaching profession; 4 have died; and 11 cannot be traced.

The following are details of the college budget:—

	Rs.	
Salaries of staff	34,744	per annum.
Salary of clerk	720	"
" " librarian	420	"
Allowance for superintendent of the hostel	300	"
Stipends (54 at Rs 20 per mensem for ten months)	10,800	"
Servants 2 (Rs 12); 1 (Rs. 10), 1 (Rs. 8), 2 (Rs. 7); 2 (Rs. 6)	816	"
Travelling allowance	200	"
Allowance to medical officer for special lectures in hygiene	240	"
Purchase of books	450	"
Games materials	150	"
Apparatus	1,500	"
Contingencies (rates and taxes, stationery, postages, hot and cold weather charges, repair of furniture, pay of menials)	3,100	"
TOTAL	53,440	"

Thus for an average enrolment of 60 men and 5 women the cost of training works out at about Rs 820 per student.

The Government Training College, Lucknow.

Control.

The Training College, Lucknow, is a government institution and is under the control of the Director of public instruction.

Admission.

The college admits for a two years' course candidates who have passed the school leaving certificate examination and for a one year's course candidates who have passed the intermediate examination of the university and candidates who have passed the school leaving certificate examination and have served with credit as teachers for three years.

Classes.

There are two classes, a 'junior class' consisting of candidates admitted to the two years' course and a 'senior class' consisting of students who have been a year at the college and of candidates admitted to a single year's course. The average strength of the junior class is 15 and of the senior class 35. The principal is of opinion that a one year's course is too short, and he thinks that candidates who have passed the school leaving certificate examination and those who have passed the intermediate examination could profitably be trained together in a two years' course.

Number of applicants for admission.

The number of applicants for admission considerably exceeds the number of vacancies At the opening of session 1916-17 there were 44 applicants for 20 vacancies in the senior class and 120 applicants for 15 vacancies in the junior class

Stipends.

There are 40 stipends of the value of Rs. 15 per mensem. About 10 teachers are deputed, usually on half pay, from schools in the province or from native states

Agreement

The only condition attached to the stipend is that students who leave the college before the end of the session for any reason other than ill-health must refund the total sum which they have received as stipend.

The course in theory.

(i) Junior class

The course of study for the junior class consists of :—

(*a*) Subject matter: English, the vernaculars (Urdu and Hindi), mathematics, and science or history and geography.

(*b*) Black-board writing and drawing.

(*c*) School management, school hygiene, and methods of teaching.

(*d*) Manual training.

(ii) Senior class.

The work of the senior class consists of :—

(*a*) Subject matter.
(*b*) Black-board writing and drawing.
} As for the junior class; students in their second year revise the first year's work.

(c) School management, school hygiene, and methods of teaching—a more advanced course than in the junior class.

(d) An elementary course in psychology.

Practising schools.

There are three practising schools, all within easy walking distance of the college. One, the Jubilee High School, is under the administrative control of the principal and is in the same compound as the college. Like the Government High School at Allahabad it serves the purposes of a demonstration school.

Organization of practical teaching.

The 50 students at the college are divided into three batches of approximately 16 each. Each batch teaches for 20 consecutive working days throughout the whole school day. Thus during their period of teaching one-year students have about three weeks continuous practice and two-year students about six weeks, three in each year. Besides teaching classes the students assist, during their period of practical teaching, in the supervision of school games and in the management of the Jubilee High School hostel.

Under this arrangement, during the nine weeks of practical teaching there are always approximately 32 students at the college and 16 students teaching in the practising schools. The college staff are fully occupied with the former, and therefore supervision over the practical teaching is delegated to the class teachers of the practising schools. The principal considers this a weakness of the system, but the only way of securing competent supervision would be to strengthen the staff to make it possible to adopt an organization of the practical work similar to that at the Allahabad college. Other disadvantages of the scheme are that it is necessary to repeat the lectures which students have missed during their three weeks of practice and the practical work is very intensive.*

Physical training.

Considerable attention is given to physical exercises. The course is compulsory for all students; it includes foot and formation drill, dumb-bell exercises and *desikasrat*.

Courses for teachers of special subjects (i) Physical exercises.

The college conducts special courses for teachers of physical exercises, classical languages, and manual training.

The course in physical exercises is for the benefit of drill instructors employed in English schools. This course lasts for

one month and is conducted by the college teacher of physical exercises and is supervised by the principal, who is keenly interested in physical training. Drill instructors employed in government schools are deputed to this course on full pay. The course is open also to aided school teachers, who are charged a fee of Rs. 10.

(ii) Classical languages

With a view to increasing the usefulness of maulvis and pandits and acquainting them with improved methods of instruction, language teachers employed in government schools are deputed to the college for ten months on about two-thirds of their full pay. Suitable candidates from aided schools also are admitted, but without stipend. The language teachers attend the ordinary lectures on the theory and practice of teaching and receive special training in the methods of teaching languages. Teachers who satisfactorily complete the course are granted departmental certificates as language teachers.

(iii) Manual training

The special course in manual training has been instituted with the aim of providing teachers in the subject for English schools. Candidates for admission to the course must have passed the school leaving certificate examination. The course lasts for ten months. The number of students admitted to this special course is restricted to three per annum; they receive stipends of Rs. 15 per mensem.

Staff

The staff of the college is as follows:—

Designation	Qualifications.	Pay per mensem
Principal . . .	Graduate of Calcutta University; Associate of the College of Preceptors; special qualifications in physical exercises and manual training.	Rs. 400—20—700
Lecturer .	Graduate of Allahabad University; trained	200
Lecturer . . .	Graduate of Allahabad University; trained	150—5—175
Demonstrator in manual training.	Trained at Roorkee College . .	75—5—90
Assistant Demonstrator in manual training	———	40
Teacher of physical exercises	Indian Army Havildar . .	20

Examination.

The certificate granted to teachers trained at the college is called the *Departmental Teachers' Certificate.* The examination for the certificate consists of two papers (one on elementary psychology, school management and hygiene and the other on methods of teaching) and a test in practice of teaching conducted by a board consisting of the principal and two external examiners. Students are not presented for the examination unless they have passed the college terminal examinations in 'subject matter.' In the decision of doubtful cases considerable weight is attached to the work done by students while under training, as judged by the records kept by the principal. The average percentage of passes is about 92.

Subsequent career of students.

Students trained at the college have no difficulty in securing appointments. The great majority become assistant masters in government schools. The minimum commencing salary is Rs. 40 per mensem. It is evident from the number of candidates applying for admission to the college that this pay is high enough to attract to the profession a sufficient number of recruits with the school leaving certificate qualification.

Cost.

The college annual budget is as follows.—

	Rs	
Salaries of staff . . .	12,700	per annum
Salary of clerk	520	„
„ „ librarian .	360	„
Twenty-eight stipends at Rs 15 per mensem each for 10 months . . .	4,200	„
Twelve stipends at Rs. 15 per mensem each for 12 months . . .	2,160	„
Three stipends for teachers of manual training at Rs. 15 per mensem each for 10 months	450	„
Laboratory assistant at Rs. 12 per mensem	144	„
Servants (1 at Rs 8, 1 at Rs. 7, and 5 at Rs. 6 per mensem) . . .	540	„
Travelling allowance . .	100	„
Allowance to medical officer for supplementary instruction in hygiene . . .	240	„
Purchase of books	200	„
Apparatus	300	„
Contingencies . . .	2,241	„
Total	24,155	„

The average annual output of the college is 35 class teachers and 5 teachers of special subjects, i.e., a total of 40. Hence the average cost of producing a trained teacher amounts to about Rs. 600.

TEACHERS FOR INDIAN GIRLS' SCHOOLS.

Vernacular Schools for Indian Girls.

I.—Demand for trained teachers.

Number of trained teachers required.

The paucity in the supply of trained teachers is one of the chief causes operating against the progress of female education. The number of teachers who could be employed, if they were available, in the expansion of education is, as one of the Inspectresses says, 'unlimited.' It will be time enough to estimate it more definitely when our supply is at least equal to the wastage on the present staff. During the year 1916-17 there were 1,896 teachers employed in vernacular girls' schools; of these only 240 were trained. The annual wastage of women vernacular teachers is higher than that of men; it may be estimated at 10 per cent. Thus the number of trained women teachers required annually on the staff of vernacular schools to replace wastage is at present about 190.

II.—Supply of trained teachers.

Annual output of trained teachers.

There are two grades of classes for training women teachers for vernacular schools, (1) Normal schools and training classes working for the vernacular teachers' certificate, and (2) Training classes working for the primary teachers' certificate. Last year the enrolment was respectively 90 and 60, *i.e.*, a total of 150. The length of both courses is two years; the number of students who last year obtained the certificate was only 35.

As a set-off to these discouraging figures the following remarks by the chief inspectress may be quoted: "The total number of trained teachers has increased by 73 per cent. since 1911-12. This leaves the proportion of trained to untrained still very much too low, but there has been an improvement in the qualifications of the untrained teacher which does not appear in the statistics. In practically all the vernacular schools which I have visited I have found one or more, or sometimes all of the staff, studying privately with a view to being examined in the course of one or other of the sections; sometimes unfortunately it is only that of the lower primary, but in a certain number of cases mistresses

have appeared for the vernacular final examination, a standard at which they rarely aimed a few years ago The motive for this further study is sometimes ambition, sometimes pressure from the Inspectress and more often the hope of the better pay which is now recognized as the probable reward of better qualifications."

The chief methods employed to encourage women to enter the teaching profession and to improve their qualifications are the grant of scholarships to prospective teachers, the provision of scholarships for students in training classes, and the improvement of salaries.

Methods adopted to attract women to the profession.

The scholarships for prospective teachers are awarded to girls who declare their intention of becoming teachers, and are tenable for a period of two years in the several sections of a school approved for the purpose.

The number and value of these scholarships are as follows:—

High section	Two at Rs. 10 p. m each
Upper middle section	Two at Rs. 7 " "
Lower " "	Eight at Rs 5 " "
Upper primary " .	Nine at Rs 4 " "
Lower " "	Five at Rs 3 " "

The scholarships are awarded by the chief inspectress on the recommendation of the circle inspectresses.

Scholarships are awarded also to women who undertake to study privately with a view to teaching These were at first intended for the wives and relatives of men teachers, but they are now open to any woman who agrees to try to qualify for the teaching profession. Many of the holders are already teachers, who need help in order to pay their pandits' fees The rules governing these scholarships are as follows:—

(a) A stipend of Rs 3 per mensem, tenable for two years will be allowed to any woman who, having passed an examination by the standard of class II, undertakes to study privately for the vernacular primary examination.

Similarly a stipend of Rs. 4 per mensem, tenable for two years will be allowed to one who, having passed the vernacular primary examination, continues her studies with a view to passing the vernacular final examination

(b) The following rewards will be given :—

(i) A reward of Rs. 50 for passing the vernacular primary examination.

(ii) A reward of Rs. 100 for passing the vernacular final examination.

(iii) A reward of Rs. 150 for passing by the standard of the High School Scholarship Examination.

(iv) A reward of Rs 250 for passing the matriculation or school leaving certificate examination.

(c) No stipend or reward shall be allowed unless the recipient signifies in writing her willingness to serve as a teacher or as a governess and the department is satisfied that there is a real prospect of her being able to engage in teaching.

(d) The continuance of the stipend shall depend on the favourable report of the Inspectress regarding the recipient's progress in her studies. For this purpose stipend holders may, if necessary, be required by the Inspectress to present themselves at a convenient place in the district In such cases single third class railway fare shall be allowed for the stipend holder and the guardian accompanying her, and for road journeys of more than five miles a mileage allowance at the rate of one anna per mile

(e) Travelling allowance at the above rates shall also be allowed when the stipend holder has to travel in order to appear at a standard examination.

(f) Arrangements shall be made for the strict observance of *purdah* during the examination

Of all means for inducing suitable women to take up teaching the improvement of salaries is regarded by the chief inspectress as the most likely to be successful, but she says, " In many of the districts the boards find their hands tied by lack of funds." She adds, " In a certain type of aided school there is a growing demand for teachers not only of better qualifications but of greater general refinement, and the possibility of meeting it seems so far to lie rather with the committees of the schools than with Government, as the former can exercise a personal influence which is the best means of inducing women of this type to take up employment."

III.—Normal Schools and Training Classes working for the Vernacular Teachers' Certificate

Aim.

The object of these schools and classes is to train teachers to teach in vernacular schools for girls up to the highest class, which corresponds to class VI of vernacular schools for boys.

Number of schools and classes.

There is one Government normal school for women teachers at Lucknow. A second normal school for women will shortly be opened at Bareilly. There are four training classes, all attached to mission girls' schools.

Qualifications for admission.

Candidates for admission to the Lucknow Normal School must have passed the vernacular final examination, those for admission to the training classes must have passed either that examination or the girls' lower middle examination (class VI of English schools for girls).

Stipends.

Stipends of the value of Rs. 10 per mensem are given to boarders at the Normal School, Lucknow (Rs. 5 to day students), and of Rs. 8 per mensem to students at training classes. The stipend is given on condition that the student agrees to serve as a teacher in the United Provinces for three years after obtaining her certificate, unless exempted by the chief inspectress.

The course and the certificate examination.

The course of training extends over a period of two sessions. The curriculum comprises the following: language, methods of teaching, school management, history of education; physiology and hygiene; nature study; drawing, sewing and cutting out, cooking (optional); practice of teaching. The examination for the certificate is by means of written papers, set by examiners appointed by the chief inspectress, and a practical test. Weight is given to the records of the candidate's progress while under training. The minimum amount of practical teaching required is 180 hours during the course of training.

Staff of the Lucknow Normal School.

The staff of the Government Normal School at Lucknow is as follows:—

	Per mensem
	Rs.
Headmistress	150—10—200
Assistant Mistress	100—10—150
" "	75—5—100
" "	50—2—60
" "	40—2—50
Matron	50

Attached to the normal school is a model school which also is maintained by Government.

Staff of a training class. The training class attached to the Victoria Girls' High School has a 'special teacher' on Rs. 50 per mensem; she is supervised by the principal and assisted by members of the school staff. Similar conditions prevail elsewhere.

IV.—*Training Classes working for the Primary Teachers' Certificate.*

Aim. These classes are usually attached to Government model schools for girls. Their object is to train teachers for vernacular primary schools. "The work of classes of this type," says the chief inspectress, "is not altogether encouraging; as a rule it is difficult to find recruits for them and when found their capacity is usually so limited that only one here and there develops any real competence as a teacher. At the same time the results that have been achieved are sufficient to justify perseverance with the scheme and the opening of new classes wherever it proves possible."

Number of Classes. On the 31st March 1917 the number of classes was thirteen. Two of these were attached to mission English schools. This is a new experiment on the part of missions, its object being to find a useful career for girls who cannot make headway with the English course.

Qualifications for admission. Admission is restricted to women who have passed the primary examination (class IV) and are considered likely to make suitable teachers for girls' schools. Preference is given to young widows and to such teachers as wish to benefit by training. The total number of students in a class must not exceed six.

Stipends. Students receive stipends of Rs. 6 per mensem; an allowance of Rs. 4 per mensem is made to the student's guardian if the latter is required. The stipend is awarded on the condition that the student will serve as a teacher for three years after she obtains her certificate, if required to do so by the circle inspectress.

The course and the certificate examination. The course of training extends over two sessions. The curriculum comprises the following subjects:—language; methods of teaching; school management; care of school premises; simple lessons on the nature of children and their discipline; outlines of hygiene; sewing and cutting out; kindergarten work (games and

occupations); cooking (optional); physical exercises (optional); practice of teaching. The examination for the certificate is partly oral and practical and partly written, and is conducted by the circle inspectress. In the examination weight is attached to the records of the candidate's progress as a student.

Staff

Each class is under the supervision of an instructress who has been trained at a normal school, or who in the opinion of the circle inspectress is fit for the post. The minimum pay of a trained instructress is Rs. 30 per mensem In the event of there being no trained instructress available an untrained teacher, if found fit, may be employed on Rs. 15 to Rs 30 per mensem according to ability.

English Schools for Indian Girls.

Demand for teachers.

The number of English schools for Indian girls was 36 in 1916-17; the total staff was 197, of whom 87 were trained. The number of teachers required to replace wastage may be estimated at 12 per annum.

Supply of trained teachers.

Classes for the training of teachers for English schools are attached to the Isabella Thoburn College, Lucknow, the Victoria High School, Agra, and the A. P. M. High School, Dehra Dun. The total enrolment (first and second year students) during session 1916-17 was twenty; the number who obtained the certificate in that year was six.

Qualification for admission.

Candidates for admission to these training classes must have passed the matriculation examination or its equivalent.

Stipends.

Stipends of the value of Rs 20 per mensem are awarded to students in training on condition that after obtaining their certificate they will serve as teachers for three years in the United Provinces unless exempted by the chief inspectress.

The course and the certificate examination

The length of the course is two years. The curriculum comprises the following: English; methods of teaching; school management; elementary psychology; history of education; physiology and hygiene; nature study; drawing; brushwork and clay modelling: sewing and cutting out, cooking (optional); practice of teaching. The minimum amount of practical teaching required is 180 hours during the course of training. The examination is conducted by examiners appointed by the chief inspectress and is by means of written papers and a practical test in teaching.

Attached to the normal school is a model school which also is maintained by Government.

Staff of a training class

The training class attached to the Victoria Girls' High School has a 'special teacher' on Rs. 50 per mensem; she is supervised by the principal and assisted by members of the school staff. Similar conditions prevail elsewhere.

IV.—Training Classes working for the Primary Teachers' Certificate.

Aim

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Number of Classes

On the 31st March 1917 the number of classes was thirteen. Two of these were attached to mission English schools. This is a new experiment on the part of missions, its object being to find a useful career for girls who cannot make headway with the English course.

Qualifications for admission

Admission is restricted to women who have passed the primary examination (class IV) and are considered likely to make suitable teachers for girls' schools. Preference is given to young widows and to such teachers as wish to benefit by training. The total number of students in a class must not exceed six.

Stipends

Students receive stipends of Rs. 6 per mensem; an allowance of Rs. 4 per mensem is made to the student's guardian if the latter is required. The stipend is awarded on the condition that the student will serve as a teacher for three years after she obtains her certificate, if required to do so by the circle inspectress.

The course and the certificate examination.

The course of training extends over two sessions. The curriculum comprises the following subjects:—language; methods of teaching; school management; care of school premises; simple lessons on the nature of children and their discipline; outlines of hygiene; sewing and cutting out; kindergarten work (games and

discussed the question and recommended that a training college for men should be established. That there is need for this college is borne out by the figures for the United Provinces; the number of men teachers employed in our European schools is 119, of whom only 54 are trained.

The pay offered to trained men undergraduates is Rs. 100 to Rs. 120 per mensem and to graduates Rs. 200 per mensem and upwards. Owing to the difficulty of obtaining qualified graduates in India, teachers for the higher posts in European boys' schools have to be brought from England or America; of the 20 graduates employed in these schools only 4 are graduates of Indian universities.

The qualification for admission to the training classes for women teachers is the senior local certificate. The length of the course is two years. The course is as follows :—

Theory.

1. *Psychology.*—James : "Talks to Teachers".

2. *Methods.*—The methods of teaching the subjects of the curriculum of European schools.

Text-book : "Suggestions to teachers" (Board of Edu[illegible]).

3. *School Hygiene and School Management.*—(a) Physi[illegible] of scholars and the means of maintaining it; signs of dist[illegible] fatigue; personal cleanliness; air, light, warmth, and [illegible] space, the attitudes of children at work; arrangements for [illegible] and physical exercises. (b) The work of the head teacher; [illegible] fication of scholars; distribution of the staff; school [illegible] discipline; time-tables.

4. *History of Education.*—An outline of the lives and [illegible] of the following : Rousseau, Pestalozzi, Frœbel, and Herbart.

5. *Courses in the subject matter of the school curriculum.*—[illegible] object of these courses is chiefly to revise and con[illegible] knowledge already possessed by the students; they are [illegible] also to provide to the staff an opportunity to set be[illegible] students good models of teaching. The classes frame [illegible] courses but submit them for approval to the inspector of [illegible] schools. Courses must be provided in, at least, English, [illegible] geography, and arithmetic.

The plan of giving the training classes freedom to frame their own courses in subject matter has worked well. The liberty is not abused. On the contrary thorough work is done in 'subject matter' *In English especially freedom* for the teacher is appreciated and results in the English classics being regarded by the students as a permanent source of enjoyment.

(ii) Practice. Candidates have practice in teaching a class and in black-board work. The number of hours given to practical teaching is 120 in two years.

Examination. The examination consists of four written papers in 'theory' and a practical test conducted by two examiners Successful candidates are classed in three divisions separately for theory and practice Doubtful cases are decided by reference to the training class records of work done by students while under training.

Special subjects. The training classes may present candidates for special certificates in drawing, singing, physical exercises, or sewing. The courses in special subjects are framed by the training classes, but are subject to the approval of the inspector of European schools. Candidates must satisfy the examiners, by means of written and practical tests and on the record of their work done while under training, that they are qualified to teach the special subjects which they offer. *A student is not encouraged to take* up a special subject unless she has a natural gift for it.

The training of kindergarten teachers. A conference was held last year to make proposals (which *have since been accepted by Government) for the training of* kindergarten teachers for European schools. The following were the chief recommendations.—

(1) The name of the examination should be the Preparatory Teachers' Certificate Examination.

(2) The length of the course of training should be two school years.

(3) The educational qualifications for admission to the course should be the senior local certificates.

(4) *Six stipends of Rs. 20 per mensem should be allotted* annually and be tenable for the period of training.

(5) The examination should consist of written papers and a practical test.

The written papers to be :—

	Marks.
(i) Psychology	100
(ii) History of Education	50
(iii) Hygiene	50
(iv) Methods of Teaching	100

The practical test to consist of two parts, (1) Teaching a class and (2) Handwork.

(6) There should be two grades of certificate, class I and class II. To gain a first class certificate candidates must obtain not less than 60 per cent. of the aggregate marks in the written papers and be deemed worthy of a first class certificate by the examiners in the practical test; to gain a second class certificate candidates must obtain not less than 40 per cent. of the aggregate marks in the written papers and satisfy the examiners in the practical test. The authorities of the training class must hold periodical examinations, both theoretical and practical, in all subjects of the course, including 'teaching a class', and place the results of the examinations and the records of students in training (their note books and all practical work) before the examiners, who will take them into account in deciding all doubtful cases as to class.

(7) The following syllabus is proposed :—

First Year.

Literature.—The object of this course is to train teachers to tell stories to children Students should be made acquainted with suitable material and given practice in the art of telling stories, in illustrating them and in training children to dramatise them

Suggested books of reference—

(i) *Method.* "How to tell stories," Bryant (Harrap); "More stories to tell to children," Bryant (Harrap).

(ii) *Subject matter.* "English Fairy Stories," Jacobs (Nutt); "Tales of Gods and Heroes," Cox (Kegan Paul); "Heroes," Kingsley; "Heroes of Asgard," A. & E. Keary (Macmillan); "Water Babies," Kingsley;

"King of the Golden River," Ruskin; "Jungle Book," Kipling; "Odyssey," Havell (Harrap); "Days before History," Hall (Harrap); "Our Empire Story," (Jack); "Child's Book of Literature," (Jack); "Pilgrim's Progress;" "Robinson Crusoe."

Geography—(*a*) The geography of the neighbourhood, physical and general, taught practically; (*b*) Life in other lands, especially child life; (*c*) Voyages and discoveries.

Suggested books of reference—

"Typical School Journeys," Lewis, "Stories of other Lands," Duckworth (Cassell); "Under Other Skies" (Cassell); "Peeps at other Lands," Series (Jack), "Little Cousins" Series; "Story of the World," (Jack), "The World in Pictures," (A. & C. Black); "Seven Little Sisters," Jane Adams; "Highroads of Geography," (Nelson); "Man and his work," Harbertson (Oxford University Press); "Voyages and Discoveries," (Jack).

Nature study—(*a*) Plant life, keeping a school garden. From observation of the growth of plants in the garden, or in boxes, the following studies: the parts of a plant, the conditions under which plants thrive, adverse conditions, experimental growth under varying conditions of (1) soil, (2) water, (3) light, and (4) air. The cycle—flower, fruit, seed. The common plants of the neighbourhood and their habitat (*b*) Recognition of the common trees of the neighbourhood by means of leaves, bark and flowers (*c*) Animal life, study of common insects in their environment, *e.g.*, ants, spiders, bees; life history of frog and butterfly; recognition of the common birds of the neighbourhood by (1) form and colour, (2) notes, (3) habitat, relation to life and conditions as illustrated by colour, beak, shape.

Suggested books of reference—

"First book of Indian Botany," Oliver (Macmillan); "Elementary studies in plant life," Fritsch and Salisbury (Bell and Son); "Trees and how they grow," Clarke Nuttall (Cassell); "Flora Simlaensis," Collett (Thacker, Spink); "Open Air Nature Books," (Dent); "Wonders of Insect Life" Series, Martin and Duncan (Oxford University Press); "Birds of the Indian Hills," Dewar (The Bodley Head); "Bird Calendar," Dewar.

Singing and Physical Exercises.—Candidates will be required (a) to submit the names of three children's songs and to sing from memory one chosen, (b) to conduct a singing lesson or musical game, (c) to play, if possible, the music of games and marches, (d) to conduct exercises in rhythmic movements and finger play.

Suggested books of reference—

" How to train children's voices," Curwen; " Figure Drawing for Children, " Curwen.

Handwork : Block-building and floor games; free paper-cutting; design making; weaving; brushwork;

knov
abili
group models.

Suggested books of reference—

" Handwork in Early Education," Plaisted (Oxford University Press); " Service of the Hand in the School," Bone (Longmans).

Second Year.

Handwork : Needlework; paper and cardboard modelling; clay modelling; basket weaving, toy-making; drawing, blackboard sketching and class apparatus.

(N B.—The note under handwork at the end of the first year course applies here also.)

Suggested books of reference—

" Educational Needlecraft," Swanson and Macbeth (Longmans); " Modelling in Cardboard and Leatherette," Taylor (A. Brown & Son); " Clay Modelling in Manual Training," Farrington (Blackie); " Toy-making," Polkinghorne (Harrap). " Toy-making for Infants," Pitman (Harrap); " The Origins of Invention," Mason (Scott Publishing Co)

Psychology : An elementary study, with special reference to the characteristics and mental development of children.

Suggested books of reference—

"Talks to Teachers," James; "The School and the Child," Dewey, edited by Findlay (Blackie); "Studies of Childhood," Sully

Hygiene: The physiological changes which take place in the development of children; the essential needs of a growing child and the formation of good physical habits; school conditions affecting the child's physical nature, how to recognise defects in the sense organs; fatigue.

History of Education. An outline study of the history of the development of the education of young children with special reference to the life and work of Froebel, Pestalozzi, Montessori.

Suggested books of reference—

"Educational Reformers," Quick; "The Montessori System," Smith (Harper & Bros.), "Montessori Examined," Kilpatrick (Constable).

Methods of Teaching: Methods of teaching the subjects of the school curriculum up to standard II.

Suggested books of reference—

"The Early Education of Children," Plaisted (Oxford University Press); "Kindergarten Teaching at Home," (Jack); "The Dramatic Method of Teaching," Finlay-Johnson (Nisbet); "Groundwork of Arithmetic," Punnett (Longmans)

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